

FLIGHT

The
AIRCRAFT ENGINEER
AND AIRSHIPS

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EDITORIAL COMMENT



THE Schneider contest for 1931 has got into a strange state of crisis. We believe that the present position is unprecedented, and it is certainly unfortunate. The Royal Aero Club of the United Kingdom has felt itself compelled to refuse a challenge by the Royal Aero Club of Italy. It has returned the proffered deposit money, stating that it does not consider that the letter from the Italian club constitutes an entry. This is strong action, and, however justified it may be, everyone must regret that the occasion for it should have arisen.

The Schneider Crisis

The full story of the events which led up to this situation is told elsewhere in this issue. It may be useful to summarise it here, but before doing so we must express our regret that there should be any discussion at all with our good friends and worthy rivals, the Italians. We do not pretend that we love and admire every Italian—Signor Mussolini himself does not claim to do that. Likewise, we do not love and admire every British citizen. When we think of Italy and the Schneider, we like to think of the Italian pilots, of Bernardi, Ferrarin, Guazzetti, Monti, Cadringer, and the late Dal Molin. They were all great sportsmen, and magnificent pilots. At their head stands another great sportsman and most courteous gentleman, General Balbo. We cannot forget that in 1929, after there had been much discussion between the two aero clubs, the Italian team arrived at Calshot only too anxious to make a race, whatever sort of seaplane they used. They left discussions of rules to others, and concerned themselves only with flying. When we recall how Monti and Cadringer took up untested machines and tried to put up a race with them, until Cadringer was almost suffocated by fumes and Monti had to come down scalded from a burst water pipe, we are filled with admiration for Italian sportsmanship and pluck. Nor must we forget that, in 1927 at Venice, as well as in 1929 at Calshot, the Italian team took

DIARY OF CURRENT AND FORTHCOMING EVENTS

Club Secretaries and others desirous of announcing the dates of important fixtures are invited to send particulars for inclusion in this list—

1930	
July 17-23	"British Week" at Antwerp Exhibition.
July 19	Air Pageant at Hanworth, in Aid of National Birthday Trust Fund.
July 19	S.M.A.E. Model Competition, Halton Camp.
July 20-	International Light Plane Tour of Europe, starting from Berlin.
Aug. 7	Norwich Flying Meeting and Garden Party.
July 26-27	London Gliding Club "Gliding Camp," Ivinghoe.
July 27-	
Aug. 3	
July 31	Entries close for 1931 Schneider Trophy Contest.
Aug. 9-24	Gliding Competitions, Rhön, Germany.
Aug. 15-31	Circuit of Italy.
Aug. 17	Shanklin Meeting.
Sept. 1-6	5th International Air Congress at The Hague.
Sept. 6	Opening of Ratcliffe Aerodrome, Leicester.
Sept. 6	Bristol and Wessex Ae.C. Air Display and Garden Party.
Sept. 20	Liverpool Air Pageant.
Sept. 27	N.F.S. Air Meeting, Hanworth.
Nov. 28-	Paris Aero Show.
Dec. 14	
1932	
May 31	Closing date for Cellon Cross-Channel Glide £1,000 Prize.

defeat in the true sporting spirit, and parted the best of friends from the British teams. We British think more highly of a good loser than of a fortunate winner, and the Italian Schneider pilots have come up to our very exacting standards in that respect.

We are very glad to learn from Col. O'Gorman that the recent discussions with the Italian Aero Club have been conducted in the most friendly spirit. Discussions on points of law are more apt to breed acrimony than are contests in the field of sport. We can well understand that the rejection of the Italian entry on a disputed point of regulations may bear an ugly aspect to those who do not know all the facts and do not appreciate all the principles at stake. We are afraid that the whole of the British press is not quite clear on these points. We shall endeavour to put the points as simply as possible.

In August, 1929, Great Britain was keyed up to a great Schneider effort. The effort did not only concern the Royal Air Force; it affected very many sides of our national life. Even the operations of our mercantile marine had been made to conform to the requirements of the Schneider contest. Then came a threat that the only real challenger would withdraw unless we did what we had no power to do, and postponed the race for a month. We felt, and we feel sure that any other party in our position would have felt, that we could not again undertake the organisation of the contest unless we were given a substantial guarantee against the chance of a similar situation arising again. This, we felt, must take the form of a large deposit with each machine entered. It would be no hardship to a genuine challenger, for the sum would be returned when the machine was presented to the racing committee of the Royal Aero Club. It would merely guard us against frivolous entries and unwarranted withdrawals.

In January, 1930, we put our case to the Schneider committee of the F.A.I., asking for the amount of deposit per machine entered to be raised to 200,000 francs. We also requested a longer notice of an entry, namely, that the latest date for entering for the 1931 contest should be, not December 31, 1930, but July 31, 1930. The committee accepted our proposals as regards the higher deposit, and also as regards some other points which do not concern us here. As regards the date of entering, the committee itself did not pass a regulation. It referred the point back to the General Conference of the F.A.I. with a recommendation that the earlier date should be made absolute. This was the only point left open for discussion by the General Conference. All the other rules were made absolute by the committee and were duly published.

The General Conference of the F.A.I. met early in June. It was not quite in a normal frame of mind, owing to the tragic death of the chairman, the Comte de Vault. When the question of the date of entry came up for discussion, Italy asked that the whole of the published rules should be rediscussed. The British contention is that the Conference had no power to discuss anything but the date of entry. The other rules had already been made absolute. However, the chairman allowed the discussion, and the conference voted on various points, altering the rules decided upon by the committee in January. The chief alteration was that in the case of an entry made before July 31, 1930, the deposit should be only 5,000 francs, but in the case of an entry made

between then and December 31, 1930, the deposit should be 200,000 francs.

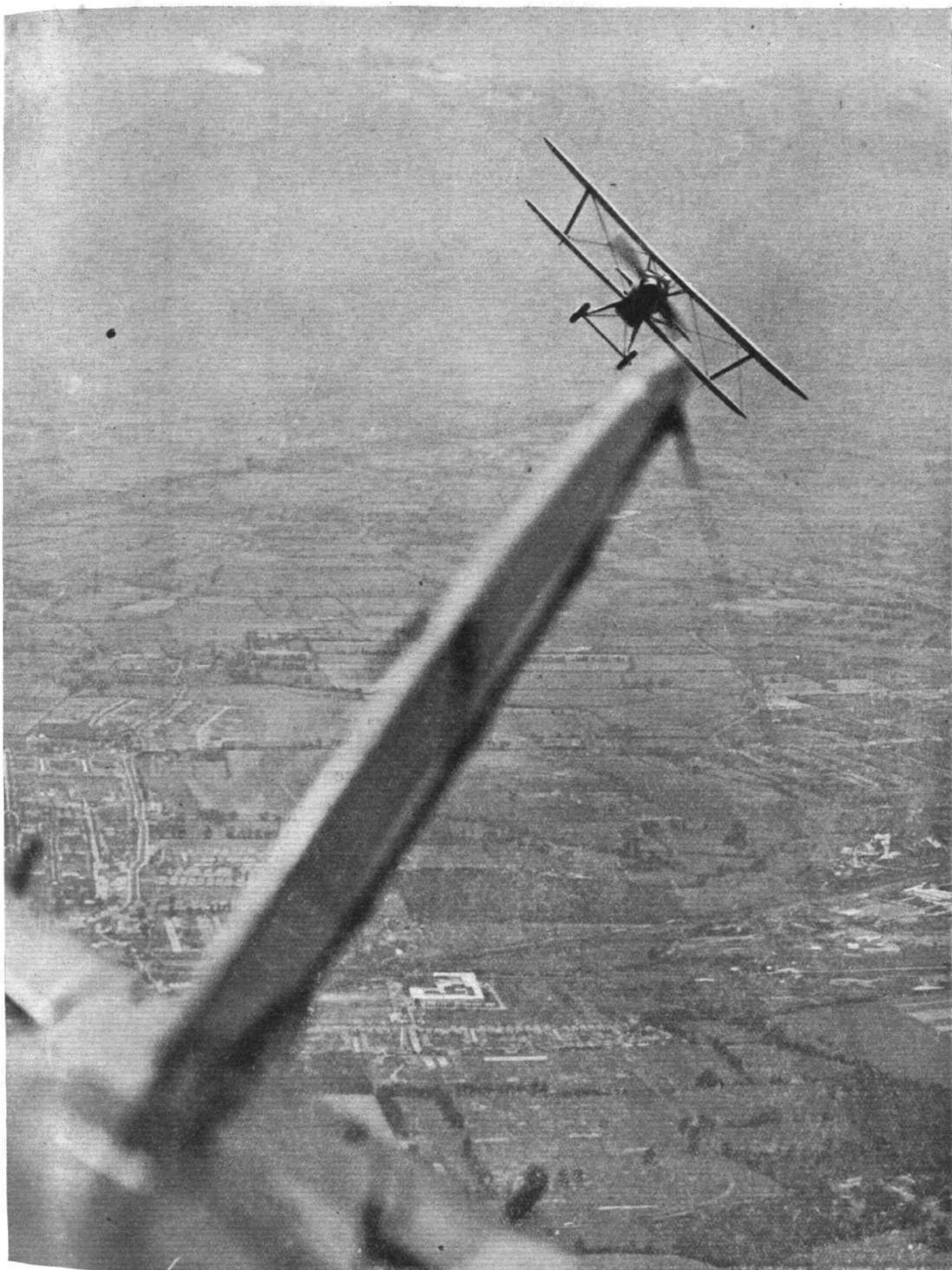
This alteration, if valid, would deprive the organising club of the protection for which it had especially asked. It happens that at present the organising club is the British club, but in another year it may be some other club. The revision, if valid, makes it possible for any country (in this case we think of Italy, but in another year it might be some other country—possibly Great Britain herself) to make an early entry at the lower rate of deposit. Then if it suited the challenger to withdraw at the last moment, he could do so with the loss of only a trifling deposit; whereas the organising club might have already expended serious sums on preparations. It is against that possibility that the committee of the F.A.I. decided to protect the organising club, in this case the British club, and the action of the General Conference, if valid, would make this protection utterly useless.

The Italian club was prompt to take advantage of the new situation, and sent in an entry of three seaplanes on the condition that the rules, as revised by the General Conference, held good, and it also sent deposit money at the lower rate. The British club has taken the standpoint that a conditional entry is not a valid entry, and has refused to consider the Italian entry as valid. It holds that the binding rules are those passed by the committee of the F.A.I. in January last, and that the General Conference of the F.A.I. acted *ultra vires* in June when it altered those rules. It maintains that entries must be made on the basis that the rules drawn up by the committee are the rules by which a challenger must be bound, and which it, the Royal Aero Club of the United Kingdom, is obliged to administer. This opinion is based on Article 2 of the Regulations which govern the contest. This article says:—"Each year, before January 31, the F.A.I. must draw up the rules for the annual contest, in accordance with the progress made in aviation. The Club charged with the organisation of the contest must conform with these rules."

The question is now, it would seem, one for lawyers. It all turns on whether the General Conference of the F.A.I. is legally bound by the decisions of its own committee which had been specially appointed to deal absolutely with a special matter, and by Article 2 of the regulations. We can ourselves see no escape from the position that the rules for the 1931 contest had to be drawn up by January 31, 1930. It is true that Article 2 of the regulations has itself been altered to the extent that, with the consent of the late M. Jacques Schneider, the contest is now held in alternate years instead of every year. But the fact remains that the rules for 1931 had to be published in January, 1930.

It seems rather deplorable that sport should be reduced to the level of international politics. There is a well-recognised law of sport, and there is an established usage of sport, which may be considered a large body of case law. No sport can be conducted if the rules drawn up by a properly constituted and presumably plenipotentiary committee are liable to revision six months after they have been published, except, perhaps, in a case when the revision is unanimously desired. If this case goes against the Royal Aero Club of the United Kingdom, a heavy blow will have been struck against the interests of international sport.

A "SITTER"



"ON HIS TAIL": A Fairey "Firefly," piloted by Flight-Lieutenant Staniland, in hot pursuit of another Fairey machine, piloted by Flying Officer McMullin, the tail of which can be seen in the foreground. Note that the two machines are circling and banking. (FLIGHT Photo.) 8711

8703



THE FAIREY "FIREFLY II M"

An Interceptor Fighter with Rolls-Royce "F" Engine

AMONG the new types of aircraft which took part in the fly-past at the R.A.F. Display at Hendon this year, none attracted greater attention than the Fairey "Firefly II M." This was partly because of the exceptionally clean and beautiful lines of this machine, and partly due to the performance, which had a "snap" about it that singled out the machine as one capable not only of great speed, but also of remarkable manœuvrability.

The "Firefly II M" is the latest development of the original "Firefly" and now has a supercharged Rolls-Royce "F" type.

The interceptor fighter class of aircraft is, as its title implies, intended for intercepting enemy aircraft which has already crossed our coastline, and is making for some objective. It must have a very high performance for a relatively short period, so as to be able to reach the altitude of the invader in the minimum of time, and be able quickly to overtake him in horizontal flight at that height. For a starting point one may assume that the raider will be coming over at not less than 20,000 ft., and that his speed at that height will be not less than 150 m.p.h. From this it is obvious that an interceptor fighter must, to be of any practical use, be able to climb to 20,000 ft. in the shortest possible time, say, 10 minutes or so, and must have a speed of some 200 m.p.h. at that altitude, if it is to be capable of overtaking the raider at a useful rate.

Although complete performance figures of the "Firefly II M" may not be given, it can be said that the machine fulfils the conditions outlined above. And it can reach a height of 10,000 ft. in under 5 minutes, an *average* rate of 2,000 ft. per minute. The landing speed is by no means high, compared with the top speed, and is further reduced by the fitting of improved wing flaps, the development of which has been a speciality of the Fairey Aviation Co. for many years.

While performance is the first consideration in an interceptor fighter, manœuvrability and view are also vitally

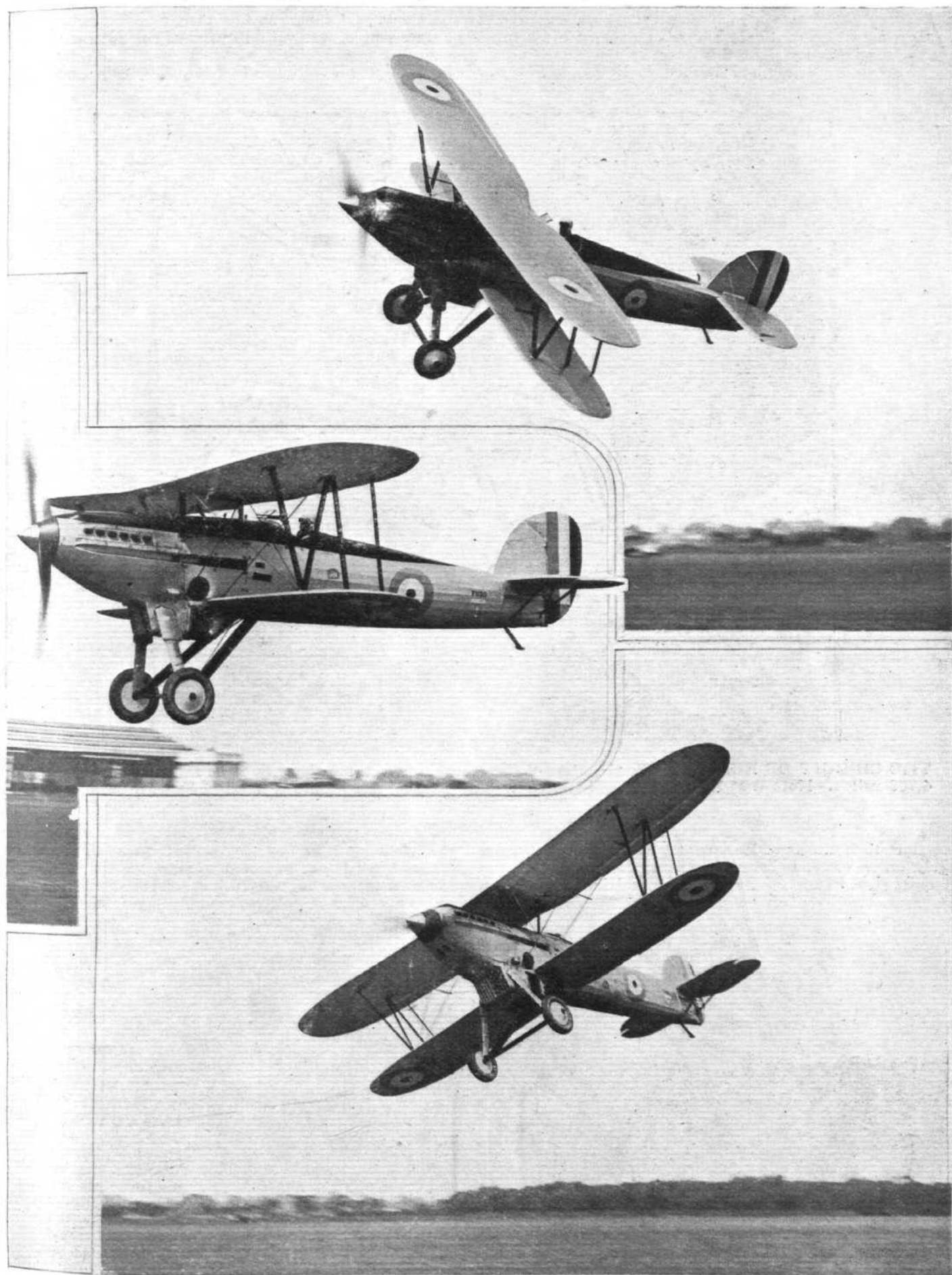
important factors. Put in another way, high performance is required to reach the raiding machine in a minimum of time. Manœuvrability and view are the qualities which count when the raider has been reached.

In the "Firefly II M" the control surfaces have received very special attention, and the machine is quite remarkable for the rapidity with which the pilot can, for example, change from a vertical left to a vertical right bank. Nor is the effectiveness of the controls confined to high speed. At angles above the stall the controls are still very powerful, and a tail-incidence gear which works easily and quickly assists materially in the manœuvrability under all conditions, as do also the variable camber wing flaps.

View in all directions has been carefully studied. The pilot's seat can be raised and lowered very readily, and normally is so placed that the pilot's eyes are on a level with the top plane centre-section. Raising and lowering the seat enables the pilot to look over or under the wing. The cowling over the front portion of the fuselage slopes down to the nose, and is made of very small curvature, so as to restrict the view to a minimum extent. The amount of equipment to be carried by a machine of this class is considerable, and it is no easy matter to instal it all in accessible positions within the narrow confines of a fuselage the cross section of which has been reduced as much as possible, due to performance considerations. In the "Firefly II M" the covering over the cockpit is made in the form of large detachable panels, the removal of which lays bare the structure and equipment.

Structurally the "Firefly II M" is of usual Fairey all-metal construction, welding being used in the fuselage structure, and various steel sections in wing spars and other parts of the main structure. Secondary structure, such as wing ribs, fairing stringers, and supports for equipment, &c., are made of duralumin. The various metals are treated to enable them to resist corrosion.

AN INTERCEPTOR FIGHTER



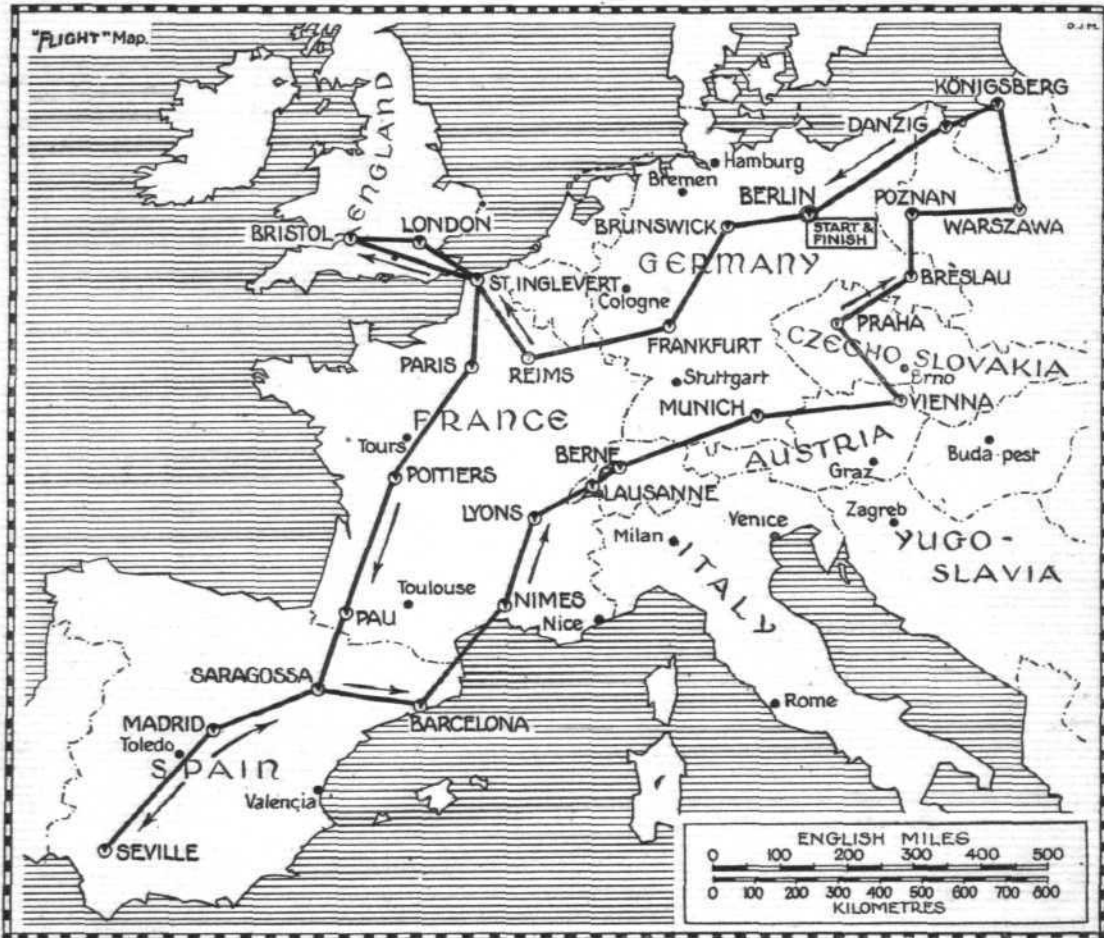
THE FAIREY "FIREFLY": These three views give a very good idea of the clean lines of this interceptor fighter. The engine is a Rolls-Royce supercharged "F" type. (FLIGHT Photos.)

INTERNATIONAL TOURING COMPETITION

Competitors Starting on Sunday

ACCORDING to the rules and regulations, competitors in the International Touring Competition for Light Aircraft, organised this year by the Aero Club of Germany, and starting and finishing in Berlin, will be free

Germany. Of these, no less than 47 are German entries. France comes next with 16 entries, Poland with 14, Spain with 9, England with 8, and Switzerland with 4. That all the entries will start is, of course, extremely doubtful. Of



THE CIRCUIT OF EUROPE : Sketch Map of the Route. The total distance to be flown is approximately 4,700 miles. Note that the course avoids Italy. The Italian Aero Club is holding its own Competition in August.

to start their circuit of Europe at 9 a.m. on Sunday next, July 20. A complete list of entries for this competition was published in FLIGHT of June 6, 1930, and indicated that a total of 98 entries had been received by the Aero Club of

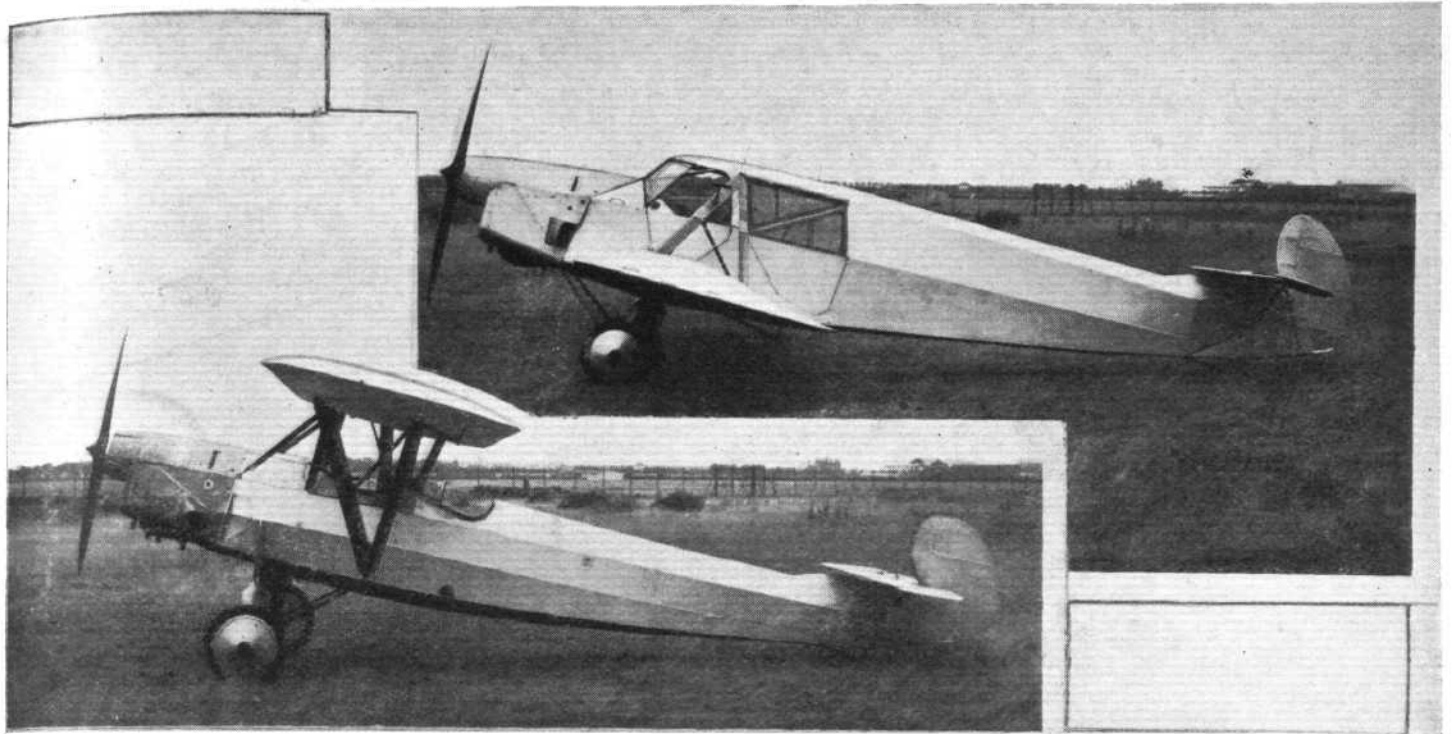
the eight English entries one at least, the Robinson "Redwing," is not expected to start.

The accompanying sketch map of the Circuit of Europe shows the towns at which competitors must make compulsory



FOR THE INTERNATIONAL TOURING COMPETITION: The American "Monocoupe" Special with Warner "Scarab" engine, has been entered by Mr. Trench, and is to be piloted by Mr. Carberry. The machine has side-by-side seating. The wheels are Goodrich, and brakes are fitted.

(FLIGHT Photo.)



FOR THE CIRCUIT OF EUROPE: Two new German types. The upper photograph shows the Albatros L.100, an all-metal low-wing monoplane three-seater with Argus engine. The other is the Albatros L.101, a parasol monoplane two-seater, also with Argus engine, and of metal construction

landings to have their log books signed by the officials. It will be seen that the machines will be alighting at two English aerodromes—Bristol and London (Heston)—afterwards returning to France *via* St. Inglevert (Calais), and crossing France, Spain, Switzerland, Austria, Czechoslovakia, Poland and Germany to Berlin, the starting and finishing point. At Berlin the start and finish will take place at the Tempelhofer Aerodrome, while the technical tests, to be carried out from August 1 to 7, will be held at Staaken aerodrome.

The total distance of the Circuit of Europe is given as 7,560 km. (4,700 miles), and at the compulsory stops indicated on the map, competitors have to have their log books signed by accredited officials. A competitor may spend the night at any one of these stops, *i.e.*, there is no fixed time-table, but if he fails to reach a control he will be penalised by 15 points for the first night, 30 points for the second night. If he fails more than twice in spending a night in a control he will be disqualified. The arrival at a control after the official closing time will be counted as a night spent outside a control.

Although the Circuit of Europe is chiefly a reliability tour, speed will be largely taken into account. The speed of the competitors will be based on the total distance divided by the total flying time. Time spent in controls is not counted. A maximum of 195 points will be awarded, and to gain this maximum a machine in Class 1 must average around the course 175 km.p.h. (108.7 m.p.h.). Machines with a lower average speed will receive proportionately less number of points.

On the point of regularity, if a competitor does not spend any night outside an official control, he will be awarded 75 points, so that it is theoretically possible for a competitor to score $195 + 75 = 270$ points in the Circuit of Europe. But to do so he will require not only great reliability, but also fairly high speed. We have not the space to repeat the summary of the regulations published in our February 21 issue, but readers who wish to follow the competition closely are asked to refer to that number of *FLIGHT*.



Prince of Wales Flies to Dover

On July 10 the Prince of Wales flew to Dover, where he christened the new motor-lifeboat, which will be employed amongst other duties to assist cross-channel aircraft that may come down in the sea. The lifeboat—which is claimed to be the fastest in the world, and was described a little while back in *FLIGHT*—was named *Sir William Hillary* after the founder of the Royal National Lifeboat Association. On July 12 the Prince flew to the third championship meeting of the Police Athletic Association at Wardown Park; his machine landing on Stopsley Common Farm.

At the end of the Circuit of Europe such machines as still remain in the competition will undergo a series of technical tests. These will consist of take-off and landing tests, and petrol consumption tests. By deciding to fly the Circuit of Europe before the technical tests, the Aero Club of Germany has probably saved itself a great deal of work, as it is to be doubted that all the competing machines will complete what is undoubtedly a very strenuous reliability test.

At Bristol the machines will land at the new municipal aerodrome at Whitchurch, while the aerodrome chosen for the London compulsory stop is Heston Air Park. It is quite impossible to give, even approximately, the time when the first competitor may be expected at these two places. From the fact that flying time only is counted in calculating speed, *i.e.*, time spent in controls is *not* counted, it follows that competitors need not be in any desperate hurry to get away again, and the time spent in controls will be governed largely by the particular control which a competitor has made up his mind to reach on any particular evening. Thus it seems doubtful whether any machine will get as far as Bristol on Sunday. Monday, however, will almost certainly see quite a number of machines arrive both at Bristol and at Heston, and readers who wish to make sure of seeing these machines will have to spend Monday and Tuesday, and possibly Wednesday, at one or other of these two controls.

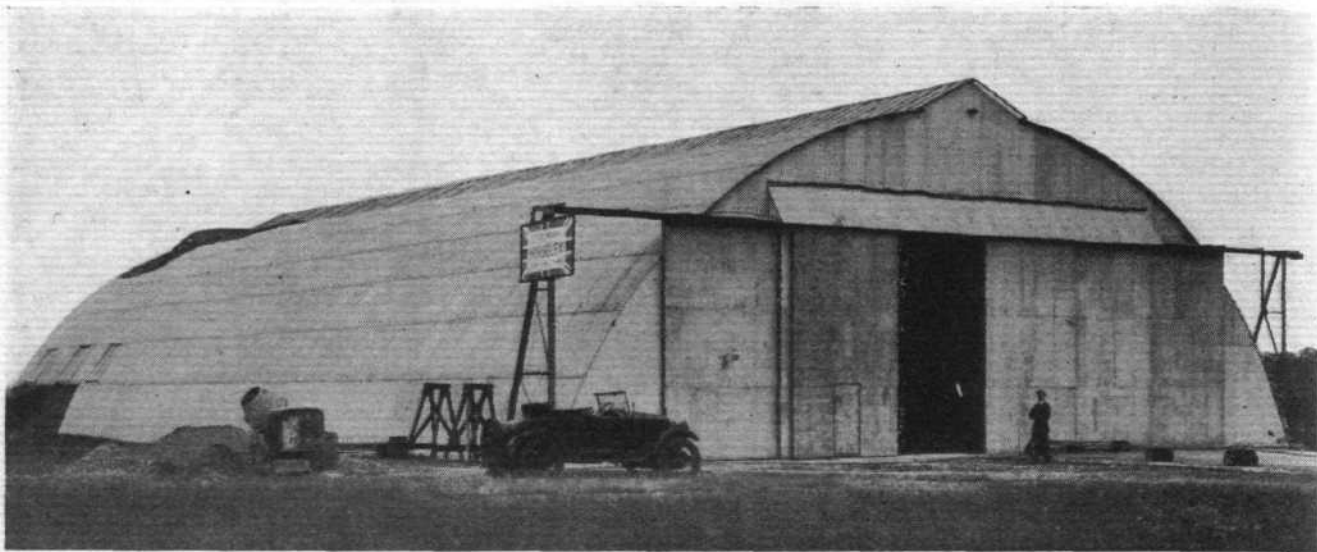
The British Entries

The eight British machines entered for the competition are: Three De Havilland "Moths," to be piloted by Mr. A. S. Butler, Capt. Broad, and Lady Bailey respectively; an Avro "Avian," to be piloted by Mr. Thorn; a Spartan "Arrow," to be piloted by Mr. Andrew; and a Robinson "Redwing," to be piloted by Mr. Tommy Rose. Mr. Trench has entered an American "Monocoupe," Special, with Warner "Scarab" engine, to be piloted by Mr. Carberry.

Baron de Précourt Killed

A MACHINE piloted by Baron de Précourt, who was accompanied by Comte Deroye and a mechanic, got into a spin in taking off and crashed at Villa Coublay on July 5. The machine caught fire and all three occupants were burned to death.

Baron de Précourt was an enthusiastic private owner, and won the Rallye competition at the La Baule Meeting last September. It will be remembered we published an article concerning the Baron's activities in our issue for December 27 last.



HANGAR CONSTRUCTION SIMPLIFIED

Junkers "Lamellendach" in England

VISITORS to aero exhibitions abroad cannot have failed to note a model of an aircraft hangar of rather unusual appearance and construction, exhibited by the Junkers works of Dessau, Germany. The model has been shown at a large number of exhibitions, and illustrates a form of construction which is almost ridiculously simple, consisting of something like four standard elements, and is hangar construction reduced to "Meccano" simplicity. This form of construction is termed by the Junkerswerke "Lamellendach" (Segmental roof), but is, perhaps, better described as steel "segmental lattice" construction. It has already established itself in Germany for a number of uses besides aircraft hangars and has proved to be highly satisfactory, as compared with other forms of construction, in many ways. We are informed that the British rights (with exception of Canada) have now been secured by the Horseley Bridge and Engineering Company, Limited, of Birmingham. This company recently constructed at Heston Air Park a hangar built on the Junkers segmental girder principle.

Although work was started on May 14, the hangar was completed—except for minor fittings—in about three weeks. It is 150 ft. long by 80 ft. wide, with an effective door opening of 62 ft. wide by 18 ft. high. Along the centre line of the roof

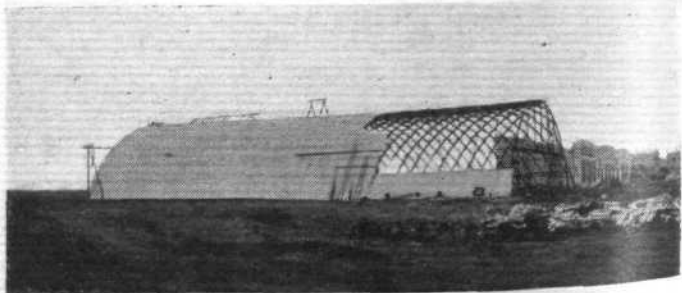
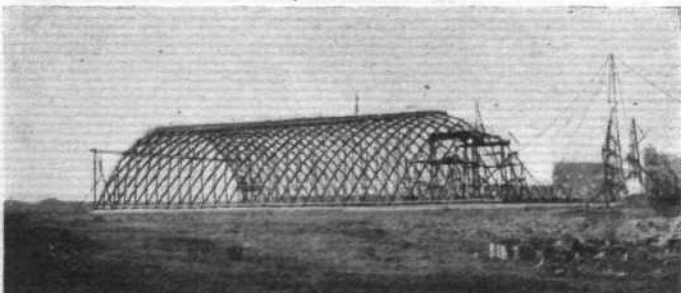
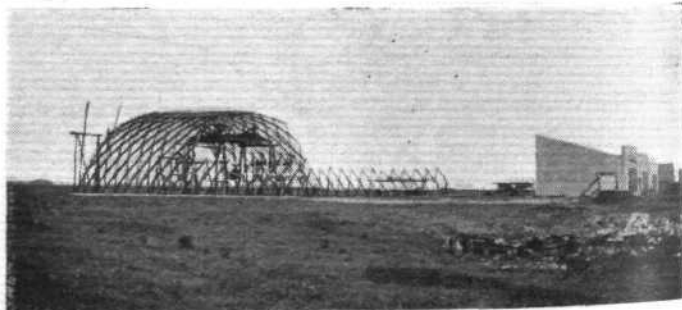
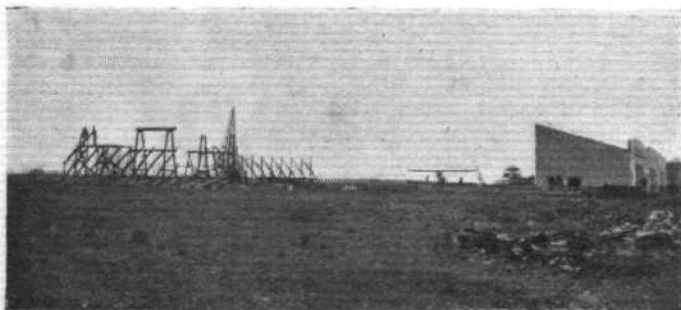
runs a mono rail capable of carrying a load of 2 tons, so that quite large loads can be lifted and shifted about in the hangar.

"Lamella Construction," as the Horseley Bridge and Engineering Co. style it, possesses several outstanding advantages, apart from its simplicity. By virtue of the latter it not only provides a hangar, or roofing, having a comparatively low cost, but this can be erected in a remarkably short space of time with a large percentage of the labour unskilled in this particular class of work.

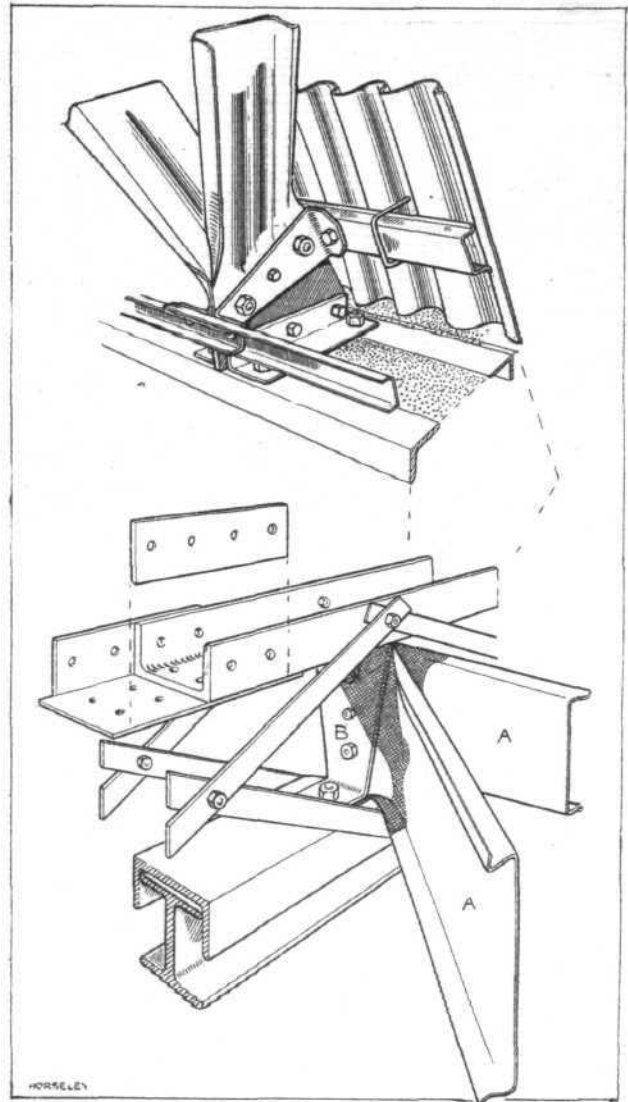
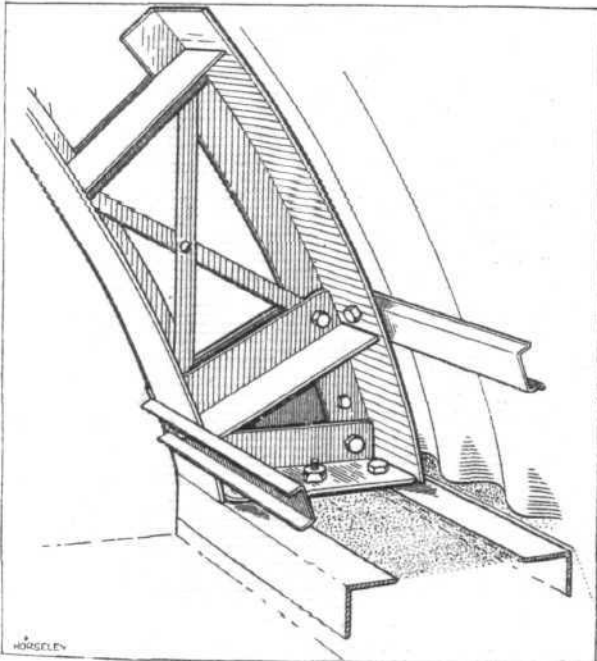
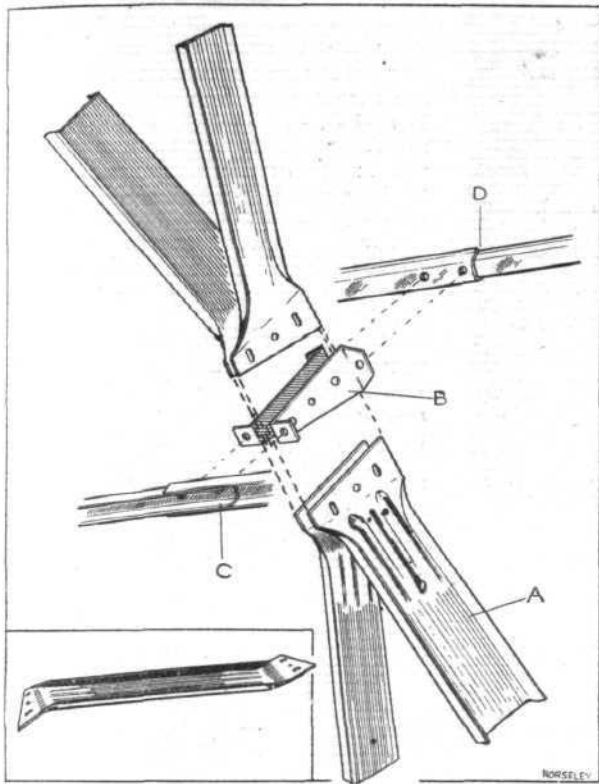
Furthermore, while the structure, once erected, is normally a permanent one, it can, if desired, be of a temporary character for it is as easily dismantled as it is erected—and it can, of course, be put up again on some other occasion or elsewhere. Also, it is not necessary to erect the full length of hangar, but only a portion of it to meet first requirements, and extending it subsequently according to future developments.

These features alone possess great advantages, as can easily be imagined, for there may be occasions, in establishing an airport, where, at first, either a "temporary" hangar or one covering a small area is desirable, and with "Lamella Construction" this is rendered possible with little inconvenience or financial difficulty.

We do not think it necessary to dwell further upon the

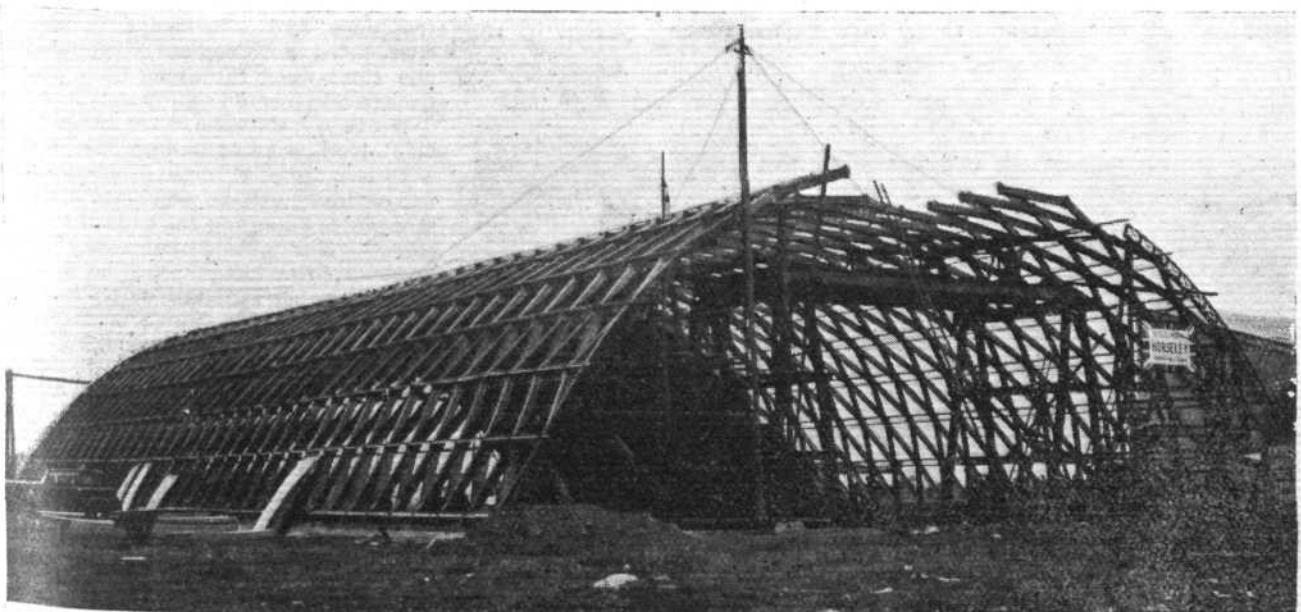


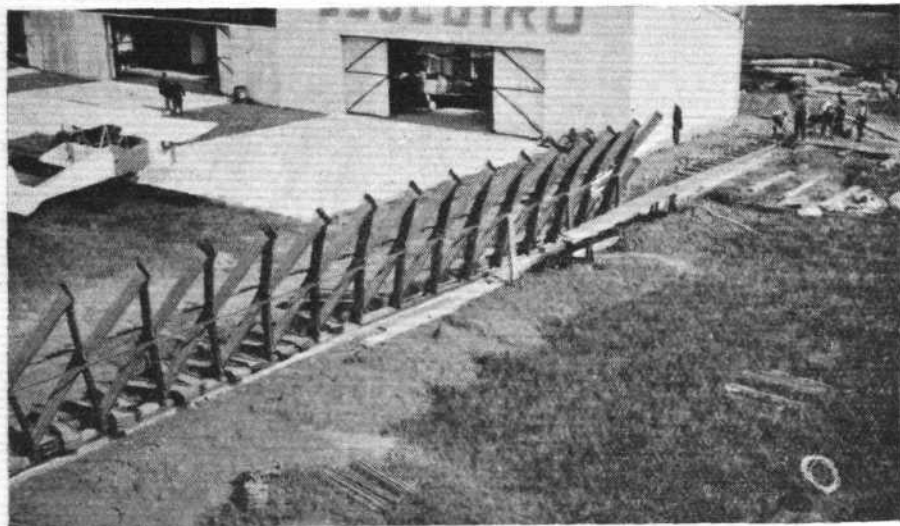
A "QUICK SLOW-MOTION PICTURE": These four views show a selection of daily stages in the erection of the "Lamellendach" hangar at Heston. From left to right, top—First day and fourth day. Bottom—eighth day and fourteenth day. The hangar was completed (except for minor items), as shown at the top of this page, in about three weeks and a week or so later was in occupation!



Constructional details of the "Lamella" hangar. On the left (top) are the four standard components used throughout.—A, right- and left-hand "Lamellas" (shown complete inset). B, the cover plates; C, the bottom, and D the top purlins. The foundation mounting (top), and the mono rail extending along the ridge or crest of the hangar, are shown on the right. The next sketch shows a portion of the arched fascia girder at the ends of the hangar.

Another view of the nearly-completed framework of the "Lamella" hangar.





Here are seen the first series of "Lamellas" being mounted on the foundation.

merits of this form of construction as the many possibilities offered will become obvious from the foregoing remarks and the following brief description of the construction itself.

As before stated, "Lamella Construction" is absurdly simple, and as a matter of fact needs very little description, the accompanying illustrations more or less speaking for themselves and indicating the main principle very clearly.

As will be seen, the hangar takes the form of an arch springing from a foundation immediately above ground level. The main structure is built up in a large diamond net-like framework, consisting of only four standard component units—the "Lamella" A, the cover plates B, the top and bottom purlins D and C, respectively (see sketches on p. 805)—all of which are standard steel pressings, the units for each component being exactly the same (except that there are "right" and "left"-hand "Lamellas," but even these are turned out from the same press.

The "Lamellas" are shallow channel-section plates made from comparatively thin steel with their ends bent to suitable angles, and these ends are clamped together in pairs (that is, a right and left to a left and right) between the cover

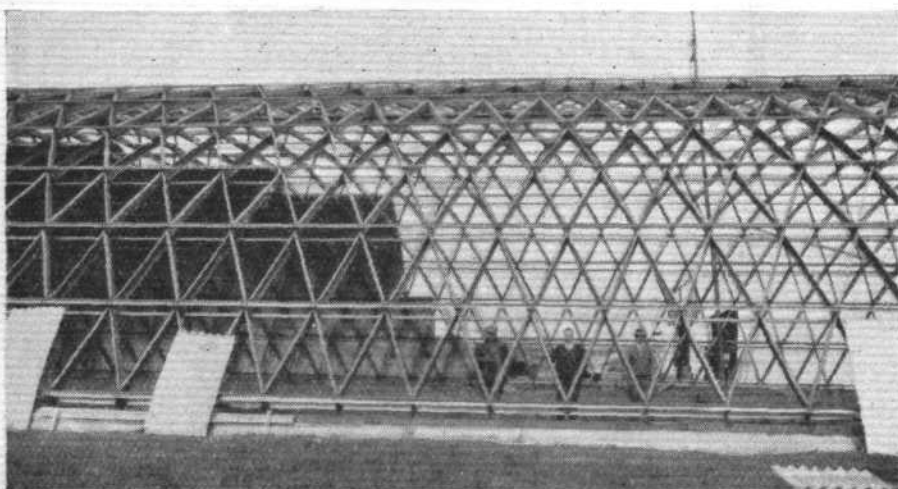
plates B by means of large bolts so as to form the diamond or lattice arch. It will be noticed that the cover plates are flanged top and bottom, and to these flanges are attached the top and bottom purlins, D and C, or channel section longitudinal members which extend fore and aft the full length of the hangar and brace each "diamond" at the point of intersection and provide the necessary lateral stiffness.

The top purlins also serve to support the outer covering of the hangar; the covering may be either corrugated asbestos sheeting (as in the case of the Heston hangar), timber and felt, or canvas. It will be noticed from our sketch that the top—or outer—purlins are lipped over to form a rest for the covering, which is secured to the purlin by galvanised U bolts.

Mounted centrally along the top of the hangar is the steel mono rail (see sketch), capable of lifting 2 tons. A central skylight, 11 ft. 6 in. wide, is also located at this point, extending the full length of the hangar, so that ample light is provided inside



A "Close-up" of net-like "Lamella" construction.



A side-view of a portion of the hangar, showing the diagonal or criss-cross arrangement of the "Lamellas."

the hangar. Leaded lights (windows), hung from the purlins by iron strappings, and with lead flashing over the corrugated asbestos covering, are let into the sides—and these can be of any width desired and located at any convenient point.

Normally, the base of the hangar rests on reinforced concrete foundations (see sketch), with two opposed angle iron seatings along the entire length, to which are bolted angle face plates clamping the ends of the "Lamellas." For purely temporary purposes, however, the hangar can be erected on timber sleeper foundations (10 in. by 6 in.).

The arch of the hangar at Heston has a span of 79 ft. 8½ in. inside the foundation line, and a rise of 27 ft. 3 in. to the underside of the roof, thus providing the maximum of clear unobstructed space inside. In addition to the main front door (giving an effective opening of 62 ft. 4 in. wide by 18 ft. high), a smaller door, 35 ft. wide by 12 ft. high, is built into the back gable.

The doors are of corrugated iron on a trussed iron framework, running on a rail by means of roller bearings. At the gables the "Lamella" network is closed by an arched fascia girder (see sketch).

THE SCHNEIDER TROPHY AND THE F.A.I. Italian Deposit Returned

COL. MERVYN O'GORMAN, Chairman of the Schneider Contest Committee of the Royal Aero Club of the United Kingdom, granted an interview to representatives of the press on Monday, July 14, in which he explained the situation as regards the Schneider contest of 1931. The situation will be more readily understood if we take events in their chronological order.

In August last year the Royal Aero Club learnt that Italy (by "Italy" should be understood the Royal Aero Club of Italy, unless otherwise stated) was likely to withdraw its entry unless the contest was postponed for one month. This created a very grave situation during the most vital month of preparation. The club felt that the organising member of the *Fédération Aéronautique Internationale* should receive protection from the F.A.I. against the chance of last-minute cancellings. The challengers always know that they will meet an opponent, and will find a race organised, and the defender ought to have similar assurance at an early date.

Accordingly, the committee of the F.A.I., at its meeting in January, 1930, introduced, at the instance of Great Britain, safeguards to protect the defender. The committee considered more than eight months' notice of an entry was desirable, and recommended that 14 months' notice should be given. This meant that for the 1931 contest the latest date for receiving an entry would be July 31, 1930. This alteration of date, however, was not published as an absolute regulation for the next contest, but took the form of a recommendation to the General Conference of the F.A.I. The committee did, however, definitely decide that the entrance deposit which must accompany an entry should be increased from 5,000 francs to 200,000 francs (say £1,600). Other rules were also drawn up, of which the most important was that the whole contest should be held on one day instead of on two days, as in recent years. These rules were duly published in accordance with Article 2 of the regulations governing the contest.

Article 2 contains the following passage:—"Each year, before January 31, the F.A.I. must draw up the rules for the annual contest, in accordance with the progress made in aviation. The Club charged with the organisation of the contest must conform with these rules." The opinion of the Royal Aero Club is that, in certain circumstances, the general regulations can be altered. There is the case when the F.A.I., in consultation with M. Jacques Schneider himself, decided that the contest should be held every two years instead of every year. But the club also holds that the regulations for any particular contest, once they have been drawn up and published by the committee, cannot be altered. In this case, the latest date for receiving entries remained open for final decision by the General Conference of the F.A.I., but no other point in the rules could be altered.

The next stage in the story is the meeting of the F.A.I. early in June last. The Federation was naturally in a state of some—shall we say?—disorganisation owing to the sad death of its chairman, the Comte de Vaulx. Italy asked for a rediscussion of the rules for the 1931 Schneider contest. Great Britain protested that the only point open for discussion was the latest date for entries. The temporary chairman ruled that the General Conference could deal with all the decisions of the committee which it had itself created. France and the United States gave strong support to the

British attitude. However, after a discussion on June 11 and 12, the General Conference decided that the latest date for entries should be December 31, 1930, but that entries made before July 31, 1930, should only be accompanied by a deposit of 5,000 francs, whereas entries made between July 31 and December 31 must deposit the full 200,000 francs. In other respects, too, the rules published for 1930 were changed so as practically to be the same as the rules for 1929.

Italy thereupon notified the Royal Aero Club of an entry of three machines, enclosing the smaller amount of deposit, the entry being conditional on the acceptance of the rules as revised on June 11 and 12. The Royal Aero Club has returned the proffered deposit, with a covering letter, of which the following is the text:—

SIR,—I thank you for your esteemed letter of June 23, 1930, in which you were kind enough to indicate to us the conditions on which the Royal Aero Club (of Italy) is prepared to contest the Schneider Trophy of 1931 and to enter three machines. I have also the honour to acknowledge the receipt of your cheque.

"I am asked to recall to you that the Royal Aero Club of Great Britain, by reason of successive victories in the two latest Schneider Trophy competitions, is the holder of the trophy, and by that fact is in a fiduciary position which allows it no latitude of varying the conditions legally fixed and published in January, 1930, the latest date prescribed by the rules, for the contest of 1931.

"The Royal Aero Club of Great Britain cannot, therefore, accept as valid altered conditions introduced at a subsequent date, such as those which you have been good enough to indicate in relation to your application for entry in your letter of June 23, although those conditions accord with the discussions at the general conference of the F.A.I. on June 11 and 12. In addition, I venture to draw your attention to the total of the deposit money per entry which is required as a guarantee of presence, returnable after the contest, and is foreseen in the conditions fixed in January, 1930, by the F.A.I., namely, two hundred thousand francs.

"Under these circumstances, I regret to advise you that your letter of June 23 does not constitute an entry."

Col. O'Gorman explained that the Royal Aero Club considered the decision of the F.A.I. on June 11 and 12 to be invalid. The club was concerned with the principles of sport. Once the rules had been published, they must stand. No form of sport, neither the Derby nor anything else, could be run on any other principle. He said that the Italian entry was refused because it was conditional, not merely because the smaller amount of deposit money had been proffered. Only an entry made unconditionally in accordance with the rules laid down for 1931 could be accepted. Great Britain was in a fiduciary position, and could only part with the trophy under the rules. The relations of the club with Italy were perfectly friendly, and the discussion was being carried on in a most amicable fashion. He also was careful to state that he laid no blame on the acting chairman of the F.A.I. for his ruling, though its validity was disputed. The ruling body of a sport must not, he said, itself break the rules.

Col. O'Gorman said that the Royal Aero Club had never considered handing over the conduct of the 1931 race to any other body. Reports to the effect that this had been considered were quite without foundation.

MUNICIPAL AIR PORTS A Step in the Right Direction

THE Civil Aviation Section of the London Chamber of Commerce has for some time been urging the necessity for establishing municipal airports, and the London Chamber's resolution pressing for the provision of such airports by local authorities in all the larger towns throughout the Empire was recently adopted by the Congress of the Federation of Chambers of Commerce of the British Empire at the Guildhall.

Up to the present local authorities in this country have in many cases been prevented from acquiring the most suitable site for an aerodrome owing to the impossibility of coming to terms with the owner of the land.

The Section, in conjunction with the association of Municipal Corporations, made representations early this year to the Air Ministry advocating that compulsory powers

should be granted to local authorities for the acquisition of land for this purpose, and has for some time been conducting a vigorous campaign with this end in view.

It is, therefore, a source of much gratification to the Civil Aviation Section that in the Public Works Facilities Bill now before Parliament, the object of which is to facilitate the acquisition of land by local authorities for works for the relief of unemployment, provision is made for the compulsory acquisition of land for aerodromes under the Air Navigation Act, 1929. At the moment there are some six municipal airports in the country, including Blackpool, Hull, Nottingham, Manchester, Bristol and Ipswich, but it is hoped that as soon as this Bill becomes law a number of other local authorities, who have had difficulties in the acquisition of sites, will be able to expedite the establishment of their airports.

PRIVATE FLYING AND CLUB NEWS

AIRMINDED YORKSHIRE

YORKSHIRE men (and ladies) very definitely showed that they are among the airminded peoples of this country. At the, so-called, Air Fête which N.F.S. had organised on Sunday, July 13, at the aerodrome of the Yorkshire Aeroplane Club at Sherburn-in-Elmet the crowd must have been one of the largest they have had at a provincial meeting for a long time.

This augurs well for the future of flying and of the Club for once the proverbially hard-headed business men of the North really appreciate the value of flying they will go for it wholeheartedly. Naturally in the north they are more prone to look at the business-value side of flying than the merely sporting side, and whether it be in the north or south there is no doubt that that is the most basically solid side and the one upon which manufacturers will be able to build up firm markets. Selling aircraft for the sporting fraternity will be sure to become a fairly paying business when the use of small aircraft becomes a really general practice, but at the moment it is the man who can afford to pay for real comfort who is the largest potential market, as he uses his machine for business trips and for pleasure and only does so because he can make his journeys faster by such means, but he will not do so in any great numbers until real comfort is provided and that is just where our manufacturers are lagging behind those of other countries. * Recently efforts have been made by one or two manufacturers to cater for this class of trade, but even there the difference in comfort provided in their expensive de luxe models and that provided in any ordinary cheap American automobile is still very much in favour of the latter.

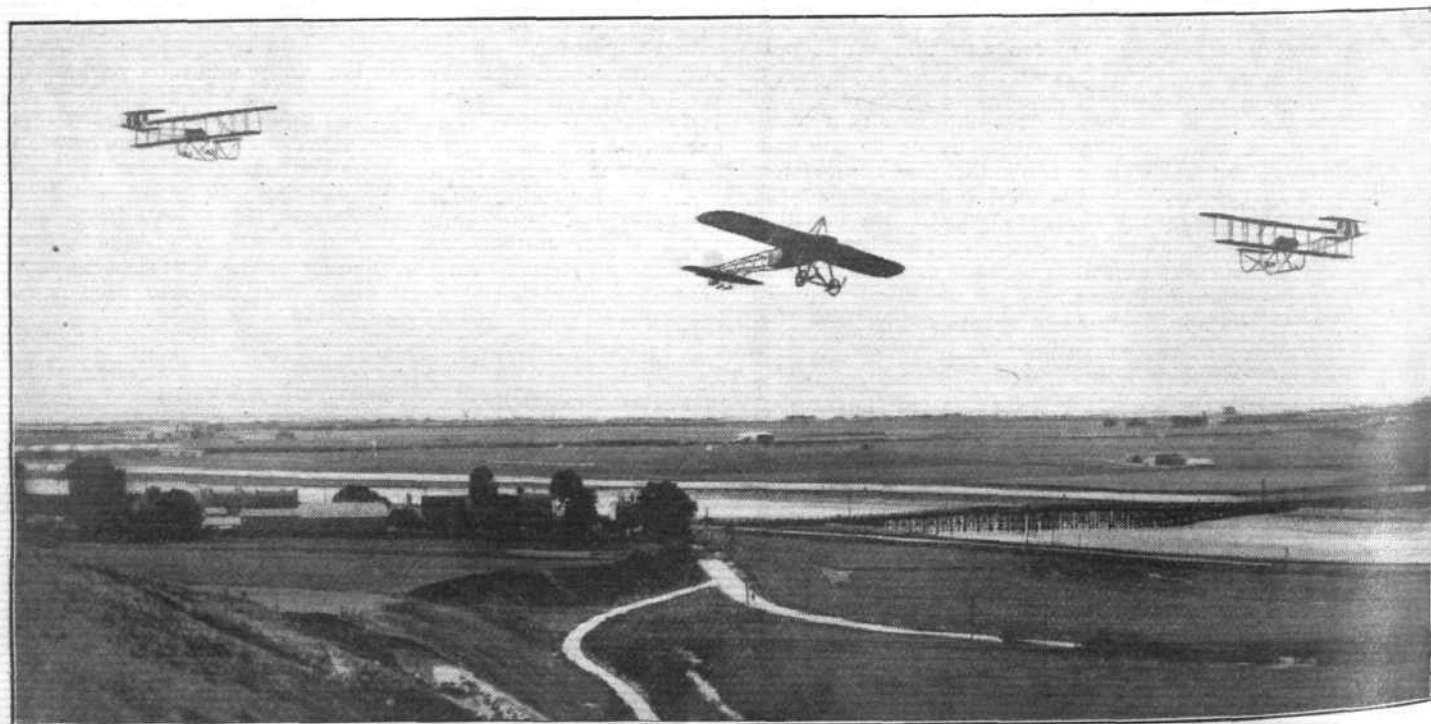
Our people do not seem to be able to get away from compromises. Almost without exception, the aircraft at present offered for sale as civil machines are admittedly compromises

and fall short of the requirements of any one class of user. The rich man who requires his aircraft for business with a certain amount of general travel wants accommodation for three or four passengers as well as his pilot, but above all the machine must be really comfortable; that it should be fast ought to go without saying. The machines available in this class generally fall short in one or other of the requirements. Then there is a class of private owner who wants a safe, comfortable, machine which above all must be simple to fly and land, sheer speed is not so extremely important for him as he will be using it almost entirely for pleasure and a cruising speed of 80-100 m.p.h. should be all he would want. For this machine to be excellent for aerobatics is again not necessary, as the class of owner who wants a machine to throw about will want an increased performance all round, and for him a sports model, as it were, should be provided.

All these types, and others, are gradually coming on to the market, but very, very slowly, and the sooner the public are awakened to the fact that aviation will benefit them the better for all of us, and this is what the Yorkshire Air Fête went a long way towards doing.

Of the display itself there is not a great deal to be said. A programme was printed and sold at sixpence, but as a programme of events it was useless and merely acted as propaganda for N.F.S. and the Yorkshire Club. Both the order and character of the events was changed and some advertised novel features cut out.

There were the usual aerobatic displays and demonstrations. An aerobatic competition, "Bombing the oil depot," and a parachute drop, also a race to Hull and back, and a race between dirt track riders and an aircraft.



SHADES OF THE PAST: An ancient composite photograph of Shoreham Aerodrome. Mr. C. L. Pashley, who, with his brother, used to instruct there some 20 years ago is now back there with Southern Aircraft, Ltd.

The Yorkshire Air Race, as it was called, was a handicap race from Sherburn to Hedon and back. This resulted in a win for the scratch man, Mr. J. D. Irving, who was flying his Moth, all cleaned up, the same as it was in the King's Cup Race. The handicapping was another triumph for Messrs.

Dancy and Rowarth, who got the first seven machines home out of a field of twelve in a space of 43 seconds.

AZ, who was third, was followed by BO, GT, VM and BS so closely that their times were only separated by fractions of a second.

Registration letters	Name.	Machine and Engine	Handicap min. secs.	Time over course min. secs.	Speed m.p.h.	Final Place
G-EBTA ..	I. Thomson ..	Bluebird (Genet) ..	15 12	62 46		
G-AAATE ..	H. Humpheries ..	Bluebird (Gipsy I) ..	7 42	63 15		
G-AAWY ..	L. Strange ..	Spartan Arrow (Cirrus III) ..	6 07	61 11		
G-ABAZ ..	H. Wilson ..	Spartan (Hermes) ..	5 06	60 45	99	3
G-AABO ..	T. Naylor ..	Moth (Gipsy) ..	4 08	60 45		
G-AAIW ..	Miss Slade ..	Moth (Gipsy) ..	4 08	62 00		
G-AAGT ..	H. Pollack ..	Moth (Gipsy) ..	3 54	60 45		
G-AABI ..	G. Ambler ..	Moth (Gipsy) ..	3 54	61 48		
G-EBVM ..	F. Tonkins ..	Avian (Hermes) ..	3 12	60 45		
G-AABS ..	O. Green ..	Avian (Genet Major) ..	1 26	60 45		
G-AACC ..	T. Rose ..	Bluebird (Hermes) ..	0 36	60 22	110	2
G-AADA ..	J. Irving ..	Moth (Gipsy) ..	scr.	60 02	112	1

LEICESTER has again shown itself fully aware of the business potentialities of aircraft. On Sunday last, July 13, the Leicestershire Aero Club, with the help of its President, Mr. Lindsay Everard, arranged a demonstration of commercial types of aircraft at the aerodrome at Desford. The occasion was mainly an invitation one to the members of the Leicester Chamber of Commerce, but large numbers of the public came as well.

Leicester, when they formed the Club admittedly did so with an eye to the possibility of using their aircraft to further their businesses, and in this they have been very ably aided and abetted by Mr. Everard, who must be unique in the amount of time, enthusiasm and money which he has put into the club and into aviation generally since he so recently took it up. He now has his own aerodrome at his place at Ratcliffe and this will be officially opened on September 6. He has several aircraft and contemplates getting others and with his own pilot he now flies a very great deal.

The idea lying behind this demonstration on Sunday was that those business men of the district who had hitherto been at least lethargic toward aviation, if not actually hostile to it, should have an opportunity of seeing the types of machines which were available for their use.

Mr. Purt, who is the Secretary of the Club, as well as of the Chamber of Commerce, had taken great trouble to secure a representative collection at the aerodrome, and the interest raised seems to have justified his trouble, if one may judge by the crowd which arrived and by the number of applicants for trial flights from those who had never been up in the air before.

Among those who came with machines were Sir Alliot Roe and Mr. John Lord in an amphibian Cutty Sark flown by Mr. Scott; Flight-Lieut. T. Rose in an Avro 5; Mr. Trost with a Junkers Junior; Capt. Robinson in the Redwing; Miss Slade, the Secretary of Airwork—who consequently knows a lot about commercial aviation—in a wooden Gipsy Moth, and then there were the club's metal Moth and Mr. Everard's Puss Moth, and also an Avian and Bluebird. All these helped in coping with the demands of the crowd who wished to go up, but time would not allow their voracious appetite for the experience to be satiated.



A WINNER AT IPSWICH: Mr. F. Jolly, with the Mobiloil Cup which he won in a bombing competition at the opening of the Ipswich municipal aerodrome.

Leicester, which has probably gone ahead quicker than any club since it has been formed, has thus again shown its pioneer spirit and proved its keenness, making a good thing of any job it starts on.

During the afternoon aerobatics by the club instructor and others and a good formation by club aircraft served to entertain the crowd still further.

The broadcasting arrangements were unique in that Mr. Everard had brought over his own private broadcasting van which he uses for his political activities.

Capt. Broad came on from Leeds and arrived over the aerodrome inverted! a novel proceeding which evidently drew the admiration of the crowd.

MARCH 18 saw the Aero Club (W.A. Section) take over from W. A. Airways, Ltd., the organisation of their flying school. This handing over took the form of an aerial carnival at Maylands Aerodrome, the principal function at which was the receiving by His Excellency the Governor (Sir William Campion)—as Patron of the Aero Club—of two "Moth" aeroplanes. These were handed over by the representative of the Defence Department. Organised by W.A. Airways Ltd. nearly three years ago, the flying school proved a valuable

asset to those people anxious to gain a thorough knowledge of flying. The best evidence of its value to the community is the fact that during its existence no less than 56 students gained their flying licences, in itself a splendid tribute to the instructors and a pleasing evidence of the enthusiasm of the pupils.

Under an arrangement with the club, W. A. Airways will continue to supply instructors and maintain machines and equipment for the club, the latter being responsible for the remainder of its organisation. The aerial carnival included several races and a number of stunting events, while those of the general public anxious to see the city from above were accommodated in the saloon compartments of the giant "Hercules" machines.

BROOKLANDS AERO CLUB.—News of interest is that H.R.H. Prince George has graciously consented to become an hon. member of the recently-formed Brooklands Aero Club.

LIST OF PRIVATE OWNERS

EVERY endeavour has been made to make this list, which is published quarterly, accurate and up to date, but with machines changing hands as they are now, and with the number of private owners swelling as rapidly as it is doing, this is no easy matter; the collaboration of all concerned would, therefore, be greatly appreciated, and anyone who notices mistakes, or who has knowledge of alterations in ownership, or of the ownership of new machines, will assist the editor if they send such information along from time to time, so that it may be included in subsequent lists.

Thanks are due to the British Corporation Register of Shipping and Aircraft and the Automobile Association for their help in the compilation of this list.

This list will be issued in pamphlet form, copies of which may be obtained from this office at 3d. each.

Letters	Owner	Machine	Letters	Owner	Machine
G-AAAA	I. McClure	Moth	G-AAGI	J. Tata	Moth
G-AAAB	Capt. O. Baker	Solent	G-AAGR	E. Cohen	Avian
G-AAAC	J. Thompson	Moth	G-AAGS	S. Tyzack	Moth
G-AAAD	G. Worth	Moth	G-AAGT	A. Pollock	Moth
G-AAAE	R. Scarlett	Moth	G-AAGY	B. Thynne	Spartan
G-AAAH	Miss A. Johnson	Moth	G-AAGZ	G. Bouwer	Moth
G-AAAI	G. Malcolm	Moth	G-AAHA	C. Coombes	Spartan
G-AAAL	J. Bryans	Moth	G-AAHD	W. Brett	Avian
G-AAAO	Duchess of Bedford	Moth	G-AAHE	W. Cubitt	Avian
G-AAAS	Capt. O. Baker	Moth Seaplane	G-AAHF	Hon. H. Bathurst	Moth
G-AAAT	Lt. G. Rodd	Avian	G-AAHG	A. Wallace	Moth
G-AAAV	R. Cooper	Moth	G-AAHI	N. Norman	Moth
G-AABF	H. Law	Bluebird	G-AAHN	A. P. Turner	Avian
G-AABI	G. Ambler	Moth	G-AAHO	L. Ingrams	Moth
G-AABJ	Flt-Lt. R. Barlow	Moth	G-AAHU	J. Shand	Moth
G-AABK	Hon. F. Guest	Moth	G-AAHW	C. Wood	Klemm
G-AABO	T. and Q. Naylor	Moth	G-AAHX	Col. H. Streatfield	Moth
G-AABX	P. Eckersley	Avian	G-AAHY	A. Hill	Moth
G-AACL	G. Mallinson	Moth	G-AAIA	W. Taylor	Moth
G-AACO	J. Chalmers	Moth	G-AAIB	Miss Trevelyan	Moth
G-AACZ	R. Thompson	Moth	G-AAII	L. Bellairs	Martlet
G-AADA	J. Irving	Moth	G-AAIP	S. Kirsten and R. Mace	Cutty Sark
G-AADC	H. Heathcote Stisted	Moth	G-AAIS	B. Hinkler	Ibis
G-AADE	C. Napier	Widgeon	G-AAIW	Miss E. Slade	Moth
G-AADF	S. Stevens	Avian	G-AAIX	G. Surtees	Avian
G-AADH	Capt. S. Burt	Moth	G-AAIZ	G. W. Higgs	Supermarine Seagull
G-AADV	J. Scott-Taggart	Moth Amphibian	G-AAJJ	Major G. Allen	Moth
G-AADW	W. Robson	Moth	G-AAJK	Lord D. Hamilton	Clarke Cheetah
G-AADX	A. Jackaman	Moth	G-AAJM	F. Lee	Moth
G-AAEB	Marquis of Clydesdale	Moth	G-AAJN	L. Horne	Moth
G-AAEE	Lady Bailey	Moth	G-AAJO	G. Fairbairn	Moth
G-AAEF	A. Ferguson	Moth	G-AAJP	Lt.-Com. G. Kidston, R.N.	Moth
G-AAEH	A. Marshall	Moth	G-AAJV	Lt.-Com. G. Kidston, R.N.	Moth
G-AAEI	D. Corsillis	Moth	G-AAJW	E. Lacey	Moth
G-AAEK	W. Adamson	Ryan	G-AAJZ	Hon. Mrs. A. Westenra	Moth
G-AAEL	Flt-Lt. D. Carnegie	Moth	G-AAKD	C. Gleeson	Moth
G-AAEN	Rev. F. Simpson	Moth	G-AAKE	P. Noble	Moth
G-AAEP	L. Ingrams	Moth	G-AAKG	L. Fowler	Moth
G-AAET	C. Horne	Moth	G-AAKI	R. Ince	Moth
G-AAEU	Miss T. Miles	Moth	G-AAKO	G. Stedall	Moth
G-AAEW	D. Schreiber	Moth	G-AAKP	H. Wrigley	Moth
G-AAEY	O. Greig	Gadfly	G-AAKR	Hon. D. Finch-Halton	Moth
G-AAEZ	H. Howard	Avro 504 K	G-AAKU	F. White	Moth
G-AAFC	Hon. R. Westenra	Moth	G-AAKV	N. Holder	Moth
G-AAFI	F. St. Barbe	Moth	G-AAKW	W. Adamson	Moth
G-AAFK	G. Linnell	Moth	G-AAKX	Grp.-Capt. J. Baldwin	Moth
G-AAFM	Hon. A. Guinness	Moth	G-AALE	F. Francis	Moth
G-AAFO	W. Black	Moth	G-AALF	J. Turner	Moth
G-AAFU	A. Richardson	Klemm			
G-AAGA	Lt.-Col. A. Gault	Moth			
G-AAGE	T. Gubbins	Moth			

Letters	Owner	Machine
G-AALG ..	Flt-Lt. E. Fielden ..	Moth
G-AALJ ..	Maj. A. Nathan ..	Moth
G-AALK ..	Hon. F. Guest ..	Moth
G-AALM ..	G. Parkerson ..	Moth
G-AALS ..	J. Briggs ..	Moth
G-AALU ..	Hon. F. Guest ..	Moth
G-AALV ..	A. Downes-Shaw ..	Moth
G-AALW ..	H. Bagnall ..	Moth
G-AARB ..	Sqd.-Ldr. F. Soden ..	Moth
G-AARC ..	T. Worth ..	Moth
G-AARD ..	Sir P. Sassoon ..	Moth
G-AARE ..	Maj. H. Travers ..	Moth
G-AARH ..	F. Dawson ..	Moth
G-AARL ..	J. Carberry ..	Moth
G-AARN ..	W. Dickinson ..	D.H. 6
G-AARU ..	F. Symondson ..	Moth
G-AARV ..	S. Payne (jun.) ..	Avro 504K
G-AARW ..	F. Tuckett ..	Moth
G-AASA ..	H. Selfridge, (jun.) ..	Moth
G-AASB ..	S. Eloff ..	Moth
G-AASE ..	Hon. A. Guinness ..	Supermarine Air Yacht
G-AASF ..	M. Singh ..	Moth
G-AASG ..	O. Maclaren ..	Moth
G-AASN ..	W. Phillips ..	Moth
G-AASV ..	E. Gandar-Dower ..	Bluebird
G-AASY ..	W. Perkins ..	Moth
G-AASZ ..	C. Burney ..	Moth
G-AATA ..	W. Dick ..	Moth
G-AATB ..	W. Straight ..	Moth
G-AATD ..	G. Hunter ..	Klemm
G-AATE ..	J. Ellis ..	Bluebird
G-AATI ..	H. Piper ..	Desoutter
G-AATN ..	R. McAlpine ..	Bluebird
G-AATO ..	N. Holden ..	Bluebird
G-AATP ..	Capt. N. Blackburn ..	Bluebird
G-AATS ..	H. Andrews ..	Bluebird
G-AAUH ..	W. Everard ..	Moth
G-AAUI ..	J. Reynolds ..	Moth
G-AAUP ..	J. Hargreaves ..	Klemm
G-AAUS ..	Capt. R. Wyndham ..	Moth
G-AAUU ..	H. Peake ..	Bluebird
G-AAUV ..	L. Guinness ..	Bluebird
G-AAVC ..	Hon. A. Guinness ..	Moth
G-AAVD ..	W. R. Westhead ..	Martlet
G-AAVE ..	Capt. W. Stopford ..	Moth
G-AAVL ..	H. Burgess ..	Breda 15
G-AAVP ..	N. Player ..	Avian
G-AAVR ..	K. Whittome ..	Moth
G-AAVS ..	R. Denman ..	Klemm
G-AAVT ..	E. Percival ..	Hendy 302
G-AAVU ..	Miss E. Williams ..	Moth
G-AAVV ..	L. Cliff ..	Moth
G-AAVW ..	L. Anderson ..	Avro 504 K
G-AAVX ..	Hon. A. E. Guinness ..	Cutty Sark
G-AAVY ..	Mrs. A. Cleaver ..	Moth
G-AAWE ..	Capt. D. Kennard ..	Klemm
G-AAWK ..	D. Watt ..	D.W. 2
G-AAWN ..	N. de Broyne ..	Moth
G-AAWO ..	G. Palmer ..	Moth
G-AAWP ..	Maj. J. Henan ..	Moth
G-AAWR ..	C. Pickthorn ..	Moth
G-AAWS ..	H. Deterding ..	Moth
G-AAWU ..	A. Preist ..	Moth
G-AAWV ..	E. Hook ..	Moth
G-AAWW ..	W. Runciman ..	Klemm
G-AAWX ..	Sir P. Mostyn ..	Moth
G-AAXA ..	K. Murray ..	Moth
G-AAXB ..	J. Parkes ..	Junkers Junior
G-AAXG ..	A. Butler ..	Moth
G-AAXI ..	Maj. Wynne Eyton ..	Puss Moth
G-AAXL ..	A. S. Butler ..	Puss Moth
G-AAXM ..	W. Everard ..	Puss Moth
G-AAXN ..	H. Murray Philipson ..	Puss Moth
G-AAXO ..	Capt. G. de Havilland ..	Puss Moth
G-AAXS ..	L. Ingrams ..	Puss Moth
G-AAXT ..	N. Holden ..	Puss Moth
G-AAXU ..	T. Williams ..	Puss Moth
G-AAXV ..	L. Desoutter ..	Puss Moth
G-AAXX ..	E. Watkins ..	Puss Moth
G-AAXZ ..	Lt.-Com. G. Kidston, R.N. ..	Puss Moth
G-AAYA ..	Lady Bailey ..	Puss Moth
G-AAYB ..	D. Tennant ..	Puss Moth
G-AAYC ..	Maj. A. Nathan ..	Puss Moth
G-AAYE ..	A. G. Jackaman ..	Puss Moth

Letters	Owner	Machine
G-AAYF ..	C. Robinson ..	Moth
G-AAYL ..	Miss W. Spooner ..	Moth
G-AAYY ..	J. Chalmers ..	Moth
G-AAZC ..	W. Taylor ..	Comper Swift
G-AAZF ..	G. Fane ..	Comper Swift
G-AAZJ ..	R. King ..	Moth
G-AAZP ..	Miss D. Guest ..	Puss Moth
G-AAZY ..	G. Thornton Norris ..	Puss Moth
G-AAZZ ..	H. Evans ..	Moth
G-ABAD ..	Mrs. G. Vereker ..	Moth
G-ABAE ..	Mrs. C. Young ..	Moth
G-ABAK ..	Hon. D. Finch-Halton ..	Moth
G-ABAM ..	R. Trafford ..	Moth
G-ABAS ..	S. Turner ..	Moth
G-ABAT ..	Miss J. Giles' ..	Moth
G-ABAU ..	H. Sinclair ..	Avro 504 K
G-ABBA ..	Lord Wavertree ..	Moth
G-ABBD ..	P. Hoare ..	Moth
G-ABBE ..	Capt. H. Balfour ..	Spartan Arrow
G-ABBL ..	Maj. C. Parker ..	Moth
G-ABBM ..	Sir P. Mostyn ..	Moth
G-ABBU ..	Lord Willoughby de Broke ..	Klemm
G-EAIN ..	Miss C. Leathart ..	Sopwith Grass-hopper
G-EAPF ..	H. Pearson ..	Austin Whippet
G-EAUM ..	H. Edwards ..	Avro Baby
G-EBCA ..	Dr. E. Whitehead-Reid ..	S.E. 5A
G-EBIY ..	A. Scroggs ..	Wood Pigeon
G-EBJJ ..	S. Dawson ..	Wee Bee
G-EBJO ..	F/O. A. Wheeler ..	Anec
G-EBJT ..	Dr. E. Whitehead-Reid ..	Widgeon
G-EBJV ..	J. McClure ..	Wood Pigeon
G-EBKE ..	G. Higgs ..	Fairey III D Sea-plane
G-EBKN ..	G. Head ..	Avro 504K
G-EBKP ..	T. Baldwin ..	Avro Avis
G-EBKY ..	D. Williams ..	Sopwith Dove
G-EBLV ..	J. Glenney ..	Moth
G-EBMF ..	A. Gee ..	Moth
G-EBMI ..	L. Bellairs ..	Martinsyde
G-EBOG ..	D. Watt ..	S.E. 5A
G-EBOI ..	P. Wills ..	Moth
G-EBOT ..	K. Marendaz ..	Moth
G-EBOV ..	B. Hinkler ..	Avian
G-EBPA ..	F. Miles ..	S.E. 5A
G-EBPB ..	L. Baldwin ..	Cranwell
G-EBPO ..	L. Richardson ..	Moth
G-EBPR ..	A. Pollock ..	Moth
G-EBQH ..	F. Muntz ..	Moth
G-EBQM ..	K. G. Murray ..	S.E. 5A
G-EBQP ..	A. Scroggs ..	D.H. 53
G-EBQZ ..	Dr. G. Merton ..	Moth
G-EBQW ..	C. Pugh and J. Buckley ..	Moth
G-EBRF ..	J. Mitchell ..	Bluebird
G-EBRK ..	R. Knight ..	D.H. 53
G-EBRM ..	R. Cazalet ..	Widgeon
G-EBRN ..	H. Law ..	Widgeon
G-EBRO ..	R. Cochrane ..	Widgeon
G-EBRQ ..	H. Probyn ..	Widgeon
G-EBRT ..	W. MacPherson ..	Moth
G-EBRY ..	Miss Wilson ..	Moth
G-EBSD ..	L. Balfour ..	Avian
G-EBSO ..	R. Bentley ..	Moth
G-EBSW ..	G. Lywood ..	Bluebird
G-EBTG ..	Lady Bailey ..	Moth
G-EBTI ..	S. Jackson ..	Moth
G-EBTK ..	H. Winch ..	S.E. 5A
G-EBTO ..	W. Handley ..	S.E. 5A
G-EBTS ..	Duchess of Bedford ..	Fokker
G-EBTU ..	W. Lancaster ..	Avian
G-EBTY ..	D. Fairweather ..	Avian
G-EBTZ ..	G. Storey ..	Moth
G-EBUR ..	S. Spencer ..	Moth
G-EBUS ..	J. Cooke ..	Moth
G-EBUZ ..	J. Chapman ..	Moth
G-EBVD ..	J. de Fraine ..	Moth
G-EBVJ ..	C. Meikle ..	Moth
G-EBVK ..	R. Frogley ..	Moth
G-EBVZ ..	Miss W. Brown ..	Avian
G-EBWD ..	D. de Villiers ..	Moth
G-EBWE ..	K. Wright ..	Bluebird
G-EBWL ..	H. King ..	Moth
G-EBWR ..	E. Rayson ..	Moth
G-EBWT ..	W. Runciman ..	Moth
G-EBWU ..	Lt. C. John, R.N. ..	Avian

Letters	Owner	Machine
G-EBWX ..	R. Waters ..	Moth
G-EBWZ ..	Mrs. H. Stevens ..	Moth
G-EBXG ..	M. Scott ..	Moth
G-EBXJ ..	H. Ashworth ..	Avian
G-EBXM ..	A. Douglas ..	D.H. 53
G-EBYA ..	E. Hayes ..	Avian
G-EBYG ..	H. Leathes ..	Moth
G-EBYK ..	Mrs. Baring ..	Moth
G-EBYO ..	A. Lees ..	Avian
G-EBYP ..	F. Gough ..	Avian
G-EBYR ..	E. Percival ..	Avian

Anec ..	1	Fokker ..	2
Austin Whippet ..	1	Henderson and Glenny	
Avro Avian ..	21	Gadfly ..	1
Avro Avis ..	1	Hendy 302 ..	1
Avro Baby ..	1	Ibis ..	1
Avro 504 K ..	5	Junkers F. 13 ..	1
Bluebird ..	12	Junkers Junior ..	1
Breda 15 ..	1	Klemm ..	8
Cierva Autogiro ..	1	Martinsyde ..	1
Clarke Cheetah ..	1	Martlet ..	2
Comper Swift ..	2	Ryan ..	1

4 pairs of owners each sharing one aircraft.
221 owners with one aircraft.
22 owners with two aircraft.

Total .. 257 owners.

Letters	Owner	Machine
G-EBYV ..	K. and J. Parker ..	Moth
G-EBYY ..	Air Comm. J. Weir ..	Autogiro
G-EBZD ..	C. Browne ..	Avian
G-EBZG ..	J. Oliver ..	Moth
G-EBZI ..	E. Thierry ..	Moth
G-EBZJ ..	A. Holt ..	Fokker F. VII
G-EBZL ..	G. Carpenter ..	Moth
G-EBZO ..	J. Roberts ..	Moth
G-EBZP ..	D. Tennant ..	Moth
G-EBZR ..	G. Thornton-Norris ..	Moth
G-EBZV ..	G. Henderson ..	Junkers F. 13

Cranwell ..	1	S.E. 5A ..	6
Cutty Sark ..	2	Simmonds Spartan ..	2
Desoutter ..	1	Spartan Arrow ..	1
D.H. 6 ..	1	Sopwith Dove ..	1
D.H. 53 ..	3	Sopwith Grasshopper ..	1
D.H. Moth ..	170	Supermarine Air Yacht ..	1
D.H. Moth Seaplane ..	1	Supermarine Seagull ..	1
D.H. Moth Amphibian ..	1	Supermarine Solent ..	1
D.H. Puss Moth ..	17	Wee Bee ..	1
D.W. 2 ..	1	Westland Widgeon ..	8
Fairey III D ..	1	Westland Wood Pigeon ..	2

5 owners with three aircraft.
1 owner with four aircraft.

Total .. 288 Privately-owned Machines.

June 30, 1930.

THE HONG KONG FLYING CLUB.—There was a large gathering at the Kai Tak Aerodrome on Saturday, May 31, when His Excellency the Governor, Sir William Peel, K.B.E., C.M.G., officially opened the clubhouse of the Hong Kong Flying Club.

His Excellency and Lady Peel were met by the Hon. Mr. W. Shenton, President of the club. Others present included His Excellency Maj.-Gen. Sandilands, C.B., C.M.G., D.S.O., Hon. Mr. W. T. Southorn, Hon. Mr. H. T. Creasy, Comdr. G. F. Hole, Hon. Dr. S. W. Tso and Mr. E. I. Wynne-Jones.

Sir William Peel, in the course of his speech, commented on the rapid strides made in aviation in recent years. He congratulated the Hong Kong Flying Club on the progress they had made, and observed that in undertaking to train men and women of all nationalities in aviation, the club was conferring a great boon, not only on Hong Kong, but on the world generally.

The Hon. Mr. W. E. L. Shenton predicted a great future for Hong Kong as an air port, pointing out that the various big cities in South China would be within a few hours' flying of Hong Kong.

The club receives an annual grant of \$30,000 and an initial grant of \$60,000, and owns two Avians (Hermes). One is fitted with floats and the other at present fitted with a land undercarriage, although at a later date this machine will also be converted into a seaplane. It has been unanimously decided that it was preferable to instruct pupils in seaplanes as the Colony consists of nothing but mountains, valleys and seas.

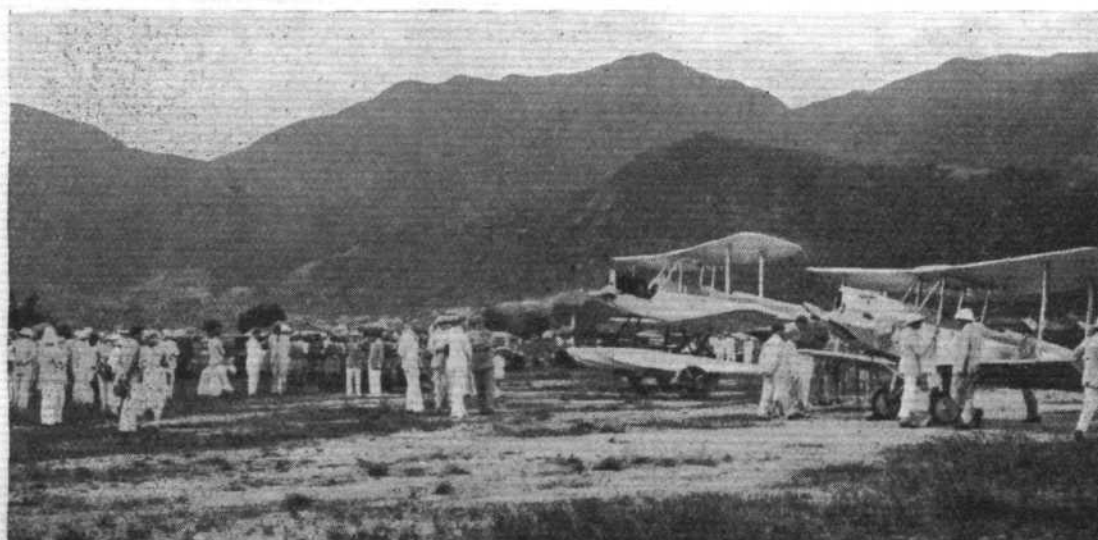
The club-house, a three-storey building which was at one time owned by a wealthy local Chinese gentleman, is situated

on the edge of the Kai Tak Aerodrome, and is within a stone's throw from the R.A.F. hangars in which machines are housed. After His Excellency Sir Wm. Peel, C.M.G., had formally opened the club-house, an aerobatic display was given by F/O. Bennett, who has been so kindly acting as hon. instructor. The rest of the afternoon was then devoted to giving prospective members trial flights.

LANCASHIRE AERO CLUB.—On the occasion of the King's Cup Race, Woodford Aerodrome, it will be remembered, was a turning point in the race, and the club organised a private garden party so that the members would have some pleasant distraction after the machines had left. These included a tennis tournament, aerobatic competition, landing competitions, etc. The aerobatic competition was won by Mr. A. C. Mills and the landing competition was won by Mr. F. Garner.

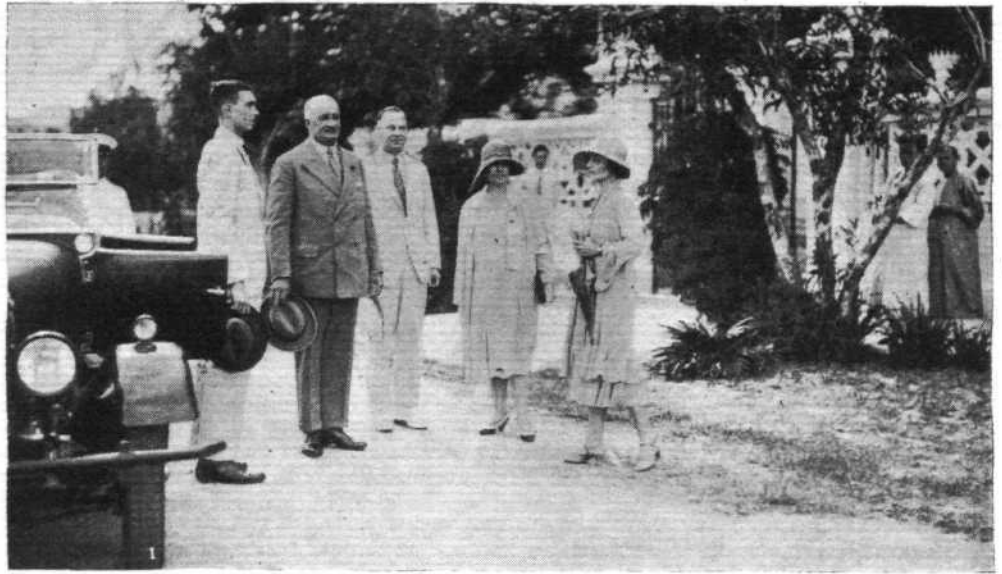
The greatest excitement of the day, however, was naturally the great race itself, and this reached fever heat early in the race when Miss Winifred Brown passed the turning point third, having started fourteenth from Hanworth. Observers noticed that Miss Brown was the only pilot to approach Woodford Aerodrome exactly on her course, and it has since been ascertained that her talent for navigation was a very great factor in her success. The club was naturally delighted when the news came through that their member had won and from the point of view of flying clubs in general, because Miss Brown is not only the first lady pilot to win the race, but the first club-trained pilot to do so also.

Miss Brown flew from London to Woodford on Sunday and received a great reception at the hands of her brother and sister members. Her reply to eager questions was characteristically modest. She simply said that she owed her success to a good machine, a good engine, and a good navigator.



THE HONG KONG CLUB: The two machines of the Club are shown against a background which makes forced landings undesirable! For this reason, the land undercarriage will also be changed for floats. Both machines are Avians ("Hermes") and a lot of good work has been done on them.

THE FAR EAST: (L. to R.)
 Capt. Colman, A.D.C.; His
 Excellency, Sir William Peel,
 Governor of Hong Kong; the
 Hon. Mr. W. Shenton, President
 of the Hong Kong Flying Club;
 Lady Peel and Mrs. Shenton.



WELL-KNOWN PILOTS from Australia, Canada and the Union of South Africa have already entered for the Dominions race at the aerial meet and rally, which is to take place at Hanworth Park next Saturday, July 19, to assist Mrs. Stanley Baldwin's appeal, in conjunction with the National Birthday Trust Fund, for the extension of maternity services. Sq.-Ldr. G. Jones will represent Australia, Sqdn.-Ldr. A. B. Shearer, Canada, and Capt. R. Douglas, the Union of South Africa.

Silver cups and cash prizes to a total value of nearly £400 have been presented for these and other events by the Marchioness of Cholmondeley, Lady George Cholmondeley, Lady Bearsted and Mrs. Corning, the Duke of Sutherland,

Sir Philip Sassoon, Capt. Sir William Brass, Sir Julien Cahn, Sir Albert Bingham and Sir Edward Stern.

A number of notable people will travel to the meet by air, and among those who will arrive in their own machines are the Duchess of Bedford and Lady Bailey, and the representatives of Continental flying clubs.

Sir Alan Cobham and Flight-Lieut. H. M. Schofield have consented to give their services for passenger flights.

Miss Irene Vanbrugh is arranging for the sale of programmes by a number of actresses.

CROYDON WEEKLY NOTES

L ETOUQUET appears to be the only place to go to these days. Following the daily service run by Walcott Air Lines, two other services are now being run there from Croydon, one by Imperial Airways and the other, on charter, by Col. Henderson. Last Tuesday, Col. Henderson did the journey in his blue Junkers at a speed of 132 m.p.h. in 50 minutes. This included a climb to 8,000 ft. over the Channel. He is certainly one of the hardest workers amongst us and has just published a new book, "A Complete Course in Practical Flying. Learning to Fly—differently." It should be read and studied not only by pupils but by the most case-hardened and oil-bespattered pilots. During his experience of 5,000 hours in the air, the author has gained much knowledge which many do not even know they lack, and his book is crammed with information valuable to all. In some ways he goes right back to the old style of teaching and drives home the fundamental principles which too many instructors take for granted—with often fatal results. The book is excellently illustrated by Mr. Charles C. Dickson.

Aerial honeymoons are all the rage and this week we have to report the chartering of the Imperial Airways DH50, G-EPPF, by Mr. John Roland, the Blackpool barrister, and his bride, Miss Maysie Gasque, a wealthy American heiress. They were picked up at Stag Lane by Capt. Wilcockson and after circling Mrs. Gasque's garden, where the wedding reception was taking place, landed at Croydon to clear Customs, outward bound for Paris. This machine, which was used last week for a similar purpose by the Earl and Countess of Ava, did five trips over the Channel in one day during this week.

There is a very cheerful atmosphere about the works of A.D.C. Aircraft, Ltd., since Miss Winifred Brown won the King's Cup Race on a Cirrus-engined Avian. On the day following the race, the company "threw a party" at Heston, together with A. V. Roe & Co., Ltd., and Henley's, the Avian agents, to celebrate the event.

We understand that the "Inverted Hermes" has passed its type test successfully, and those who live on the borders of the aerodrome will now have less troubled sleep o' nights in consequence. Everyone, both inside and outside the A.D.C. factory, is thereby made content and happy.

Many strange things have come out of that place. Not long ago we saw dozens of packing cases, covered with queer Russian letters, leaving for Moscow. This week a large batch of Cirrus engines crated and marked up in Polish hieroglyphics has gone out to Warsaw.

On Saturday the whole staff and employees of the A.D.C. Aircraft, Ltd., went down to Bognor Regis for the day. But for one thing they would have had a bright and merry time. This was the announcement made there that Capt. F. R. Walker, D.F.C., is shortly to leave them and go to the new African section of Imperial Airways. His departure will be regretted by everyone on the aerodrome. It is good, however, to learn that his place will not be taken by any outsider but that Mr. E. S. Olney is to step into it. They both have all our best wishes and we know that the spirit of cheery helpfulness which they have built up around the A.D.C. factory will continue.

We remarked recently on the value of giving people joyrides in cabin machines and thus allowing them a better impression of air transport. It was good then to hear that Aviation Tours, Ltd., who chartered the Handley Page, G-EBBI, from Imperial Airways, are doing very well at this kind of work. Messrs. Brunton and Fielden, the pilots, have between them taken up thousands of passengers since April in all parts of the Midlands and North from Oxford to Newcastle.

Yet another new uniform has appeared at Croydon. The Anglo-American Oil Co., Ltd., has fitted out its ground staff in white overalls and peaked caps, so that they are clearly visible from a distance and can quickly be called over to an arriving machine. Under the superintendence of the popular Mr. Fred Hewlett they will continue to give all the willing service for which Pratts are so well known.

It is always interesting to establish contact, however distantly, with the World of Affairs. Recently we have twice seen Lord Strickland on his way to and from Malta and all its troubles. And now we have had our attention drawn to another centre of events by the departure of Romeo Popesco, the Rumanian Ace. He left at 4.47 a.m. on Wednesday morning, piloting the Titan-Farman monoplane, F-AIVQ, for Bucarest. His mission is not known, but it led to his being congratulated by the new King Carol.

The Desoutter works appear to be very busy on their Mark II machine and the first batch of these should very soon be in the air. The machine has attracted a lot of interest in all quarters and many people are coming down to see it.

One thousand six hundred and sixty-four passengers and 68 tons of freight passed through between July 1 and 7. This (last) day was a record when 66 large passenger machines on regular service were dealt with and shepherded through by the completely unruffled control officer. "M.L."

GLIDING

THE EXPERIMENTAL LIGHT PLANE CLUB send details of a method of operating a glider in a flat field which may be of interest to those who have not yet the use of a hill side. The method is of value because it is rapid, and needs only three assistants besides the pilot, two of whom may be small boys (always present!)

On July 6 they obtained eleven flights in two hours, nearly all of 30 seconds or more, heights of from 25 to 30 ft. being reached. The wind was blowing some 10 to 15 miles an hour. The glider used was the club's "Linnet" biplane.

To begin with the glider is held back by a simple quick release hook, which is lashed to a screw picket. The release is operated by an assistant pulling a string. Seventy yards of $\frac{1}{8}$ elastic are used double and attached to the back of a car, which is placed immediately in front of the glider. Ten yards of rope are used between the elastic and car to give a little extra clearance. Next a distance about equal to the length of the doubled elastic is paced out in front of the car and marked with a flag. When the pilot is ready, the assistant stands at the wing tip with the release string in his hand while the driver of the car drives slowly (not more than 6 m.p.h.) until he reaches the flag, (thus giving the elastic double extension), he then blows his horn as a signal for release. As soon as he sees that the glider is free he steps on the gas and gives all the extra pull he can until the elastic drops off, he then turns off to a pre-arranged side.

At first sight there may seem considerable risk of collision. Actually on this occasion the glider never caught up with the car in spite of it turning off. When the writer was piloting he never felt in the slightest difficulty about avoiding the car, though generally as a precaution he turned off a shade in the opposite direction to the car. There might be some difficulty if there was very little wind, so perhaps it would be advisable for an experienced pilot to make a first flight if there were any doubt.

THE LONDON GLIDING CLUB.—Gliding instruction will be available on the following dates, weather permitting :—

Wednesdays, July 9, 16, 23, at 6 p.m. Saturdays, July 12, 19, 26, August 2, at 2 p.m. Sundays, July 13, 20, August 3, at 11.30 a.m.

Wednesday evening instruction is at present purely experimental. Should sufficient support be forthcoming to justify its continuance it is hoped to make the necessary arrangements.

A six-a-side Prüfling Match against the Lancashire Aero Club has been arranged to take place at Ivinghoe on July 27 next. It is hoped that as many members as possible will rally round to ensure that the Lancashire Club team will be given a real welcome.

The Committee have decided that in future no member shall be allowed to fly the "Prüfling" machine unless holding a "B" Glider Pilot's Certificate.

On Tuesday, July 15, H.R.H. the Prince of Wales attended a special demonstration of gliding at Ivinghoe Beacon. He flew there in his Moth, and later arrivals included Prince George, Lord Louis Mountbatten; Sir Sefton Brancker, Col. the Master of Sempill and Mr. Gordon England.

Herr Kronfeld made two flights of about 20 mins. each in the "Wien," and Capt. Latimer Needham also gave a demonstration.

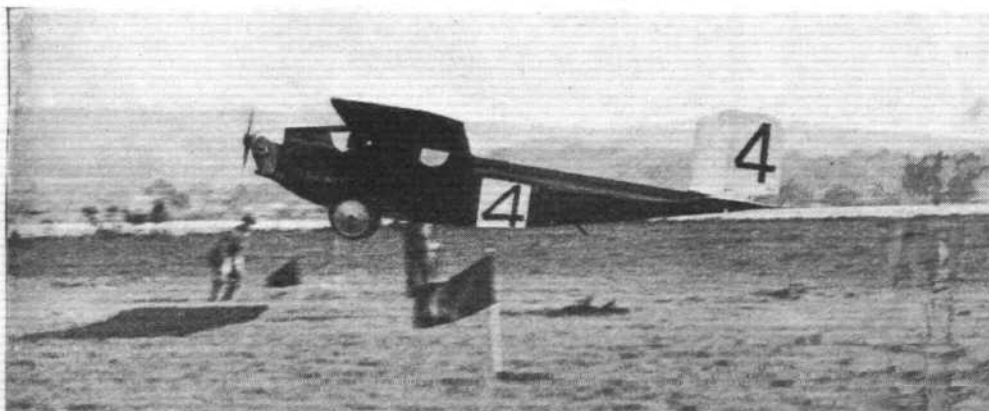
THE SCARBOROUGH GLIDING CLUB.—Since its formation some weeks ago the club has made great strides. "Flight No. 1" (35 members) is now complete, and "Flight No. 2" will shortly be up to strength. The club's first trainer-type Glider arrived a fortnight ago and has already been flown—with varying degrees of success!—by about 15 members, the trials taking place on the moors to the north of Scarborough. Miss Amy Johnson, C.B.E., has honoured the club by cabling her acceptance of the Vice-Presidency. On July 2 an informal dinner was held at the club's headquarters (the Royal Hotel) to enable members to meet Mr. Gordon England and Herr Kronfeld, the well-known "Ace," and to make arrangements for demonstrations, which took place from the Castle Hill, Scarborough, on July 11 and 12.

Friday, July 11, was a day of thrills for the Scarborough Club. The two well-known gliding pilots, Herren Kronfeld and Magersuppe were announced to give demonstrations from the Castle Hill, a lofty eminence which juts out into the North Sea, having steep cliffs on three sides. Conditions were somewhat blustery, the wind reaching about 50 m.p.h. at times. Rather than disappoint the crowd of 5,000 which had assembled, both fliers essayed a flight. Herr Magersuppe was catapulted off in his "Professor" type plane from a point close to the northerly face of the cliff. Unfortunately, a downward eddy affected his take off and he did not gain sufficient height to clear a guard fence at the extreme edge of the cliff, which is some 250 ft. high at this point. The fence stripped off a celluloid panel of his wing just as an upward gust carried Magersuppe sharply out of danger. With commendable skill the pilot recovered some degree of control and flew down wind over the crowd until he was over the South Bay where he turned. Difficulty with his controls, however, compelled him to take the line of least resistance, and skirting the face of the Castle Cliff he gently alighted on the sea about 50 yards from the Marine Drive, where he clambered out on the fuselage and settled down to await help. The choppy sea slowly submerging his plane, Magersuppe had no alternative but to divest himself of sundry garments in preparation for a "swim for it." Fortunately, however, a motor boat reached him in time, and he escaped with bruises and a wetting.

Herr Kronfeld's attempt followed. His famous glider "Wien" was pulled off, but also encountered a downward gust at the cliff edge, which caused him to swing round sharply at a peculiar angle and crash. The starboard launching party had narrow escapes from serious injury by ducking and flopping, the only damage being two cut ankles and bruised shins. With both machines out of commission there was no alternative but to "call it a day." The demonstrations were to have continued on the following day, but have been postponed until repairs have been effected.

On Sunday, July 13, Herr Magersuppe attended the club's own practice flights on another site, and gave the members the benefit of his experience, several short flights being made by the uninitiated. He also took the club's glider (a Zögling type) up and showed how it could be handled.

The Scarborough Club have been rather unfortunate, but can congratulate themselves on having had plenty of early experience (their own glider did not emerge entirely unscathed from previous trials), and they have certainly given a large section of the general public a real thrill for their money!



ALMOST A GLIDER: The Wee Bee, which appeared again at the Sherburn Meeting on July 13. This was one of the forerunners of the present day light aeroplane.

(FLIGHT Photo.)

CIVIL AVIATION REPORT

Progress in 1929

THE report on the progress of Civil Aviation in 1929 shows the beginning of a large forward movement in British civil flying, but makes the reader look forward with considerable eagerness to the reports of the years 1930 and 1931, when a great part of the promise of 1929 should have been fulfilled. The outstanding event of the year 1929 was the opening of the air service between Great Britain and India. That service has in the meantime suffered some vicissitudes, but is now well on the right road to complete success. The full advantage of the service will not be apparent until airways spread from Karachi over India, but still the institution of the England-India line definitely put the British Empire in the very van of air progress. The first route followed by Imperial Airways was by air to Basle, then by night train to Genoa, and then by flying boat to Alexandria, where a land connection was made with the Cairo-Karachi airway. This was changed later to a Central European route, which is 100 miles shorter. At the end of the year the Government of India opened the Karachi-Delhi service with machines chartered from Imperial Airways.

Imperial Airways also maintained two routes to the Continent, to Zurich *via* Paris, and to Cologne *via* Brussels. The Southampton-Guernsey service was stopped at the end of February, 1929.

Among other activities, Imperial Airways provided a three-engined high performance aircraft for the service of a goldfield company in New Guinea.

Survey and Photography

Air survey is a sphere in which the aeroplane no longer has to fight for its place in the sun. It needs no Government subsidies to keep it in the air. The survey aeroplane not only pays its way handsomely, but also saves time and money to the Governments which employ it. Two British companies carry out this admirable function, the Aircraft Operating Co., Ltd., and the Air Survey Co., Ltd. During the year under review the former of these completed the final strips of the Zambesi survey, it made satisfactory progress with the survey of Rio de Janeiro, and it carried out the survey of the Baghdad district. Its subsidiary company, Aerofilms, Ltd., carried out a number of surveys for town councils and estate and building companies in Great Britain.

The Air Survey Co., Ltd., during the year formed a subsidiary company, Indian Air Survey and Transport, Ltd. The parent company accepted a contract for a survey in the Sudan. A controlling interest in the A.S.C. was acquired by the Fairey Aviation Co., Ltd. The Indian branch company had parties engaged in the Punjab, and in eastern India in the two provinces of Bengal and Bihar and Orissa, working mostly for the Government railways and irrigation departments.

Other Flying Companies

National Flying Services, Ltd., was formed during the year and commenced operations.

Air Taxis, Ltd., flew a total of 700 hours during the year. The sky-writing companies formed by Major Savage carried out contracts in Great Britain, Australia, Central Europe, and the United States. The aircraft of Trost, Bros. flew 23,150 miles, and carried 371 passengers and 8,190 lb. of luggage.

During the year there were 13 assisted and eight unassisted light aeroplane clubs in the country. Their operations and those of the clubs in the Dominions and Colonies will be dealt with in more detail in our Private Flying Section.

Long-Distance Flights

The non-stop flight to India by the late Squadron-Leader Jones-Williams and Flight-Lieut. Jenkins was an activity of the Royal Air Force, as were the feats of the High Speed Flight, and it is not clear why they are included in the report on civil aviation. Other notable flights of the year were those of Flight-Lieut. Moir and F./O. Owen to Australia in a Vulture with Jaguar engine; of the late Capt. Grosvenor round Australia in a Cirrus-Moth; of Squadron-Leader Kingsford Smith, Flight-Lieut. Ulm, and two others from Sydney to Croydon in the Fokker "Southern Cross," with three Whirlwind engines; of Mr. C. D. Barnard and Mr. Little, with the Duchess of Bedford from Croydon to Karachi and back in eight days in a Fokker with Jupiter; and of Mr. F. C. Chichester from Croydon to Australia in a Gipsy-Moth.

The report considers the air squadrons at Oxford and Cambridge, and also the four schools for training Reserve of Air Force Officers, as coming under the head of civil flying. The establishment of the University squadrons remained at 75 each. The four schools completed 524 annual training courses and 62 *ab initio* courses, which was slightly less than in the previous year.

The Aircraft Industry

One of the most interesting sections of the report is that which deals with the production of new types of aircraft. The report comments that there was a distinct trend towards the monoplane type. Among the most interesting machines produced or designed during the year were the following:—

The monoplane landplanes included the Westland 4, the Avro 10, the Avro 5, and the Desoutter three-seater coupé.

The firm of Saunders-Roe produced the four-seater monoplane boat, the "Cutty Sark," and began work on a larger size, to be known as the "Flying Cloud," to seat six or eight. The Supermarine firm produced the monoplane flying yacht with stabilisers, a three-engined machine. The Blackburn "Nile," with three Jupiters, was under construction. Work proceeded on the Short three-engined, 17-passenger, float seaplane. The Gloster firm produced their very interesting Survey biplane, which has since been taken over by the Aircraft Operating Co., Ltd., for work on the Rhodesian survey.

Two important new types were under construction for Imperial Airways, namely, the Handley Page 40-passenger biplane with four Jupiter IIF engines, and a Short biplane flying-boat of similar design to the "Calcutta," with four Panther engines totalling nearly 2,200 h.p. The latter is to carry 16 passengers and a ton and a-half of mails, in addition to 800 lb. of passengers' baggage. The total weight is to be approximately 30,000 lb.

Light aeroplanes showed a tendency to fall into three classes, the medium type already existing, the fast type, which will be expensive to run, and the small machines, such as the "Swift," the "Robin" and the "Gadfly," which will be cheap to run. The tendency is for cabins to become more popular.

An interesting development was the Short amphibian undercarriage for light aeroplanes, which embodies the principle of a single main float and two wing tip floats.

The report also records the new types of engine produced during the year, notably the "F" series of Jupiter and the "Major" editions of the Jaguar, Lynx and Genet. It records that the Salmson radial air-cooled engine is being produced in England.

Airships

During the year the two airships R 100 and R 101 were completed and underwent shed trials. On October 12 R 101 was moved from her shed to the mooring tower. The first test flight was made on October 14. On November 17-18 she made her longest flight of that autumn, remaining in the air for 30 hr. 39 min. Between November 9 and 12 the wind reached a velocity of 83 m.p.h. while R 101 was moored to the tower, and on the morning of the 12th there was a line squall which swung the airship through an angle of 135° in a wind of 35 m.p.h. The bow force indicator registered a load of over 15 tons, but as the bow had been designed to withstand a load of about 30 tons, the airship emerged triumphantly from this severe trial. During the trials, says the report, R 101 has fully demonstrated her strength, safety and stability, and has attained her calculated speed. The fixed weight of the airship is, however, greater than was anticipated, due in part to the experimental compression ignition engines.

R 100 was brought out of the shed at Howden on December 16 and was straightway flown to Cardington and moored. Adjustments to the wiring system of the outer cover were found to be necessary, and the airship was put into the second shed at Cardington on December 18.

The Aeronautical Exhibition

An international aeronautical exhibition at Olympia was opened on July 16 by H.R.H. the Prince of Wales. Including Great Britain, eleven countries were represented. Twenty-eight foreign and 34 British constructors exhibited aircraft, engines, and accessories.

Export Trade

Detractors of British air effort are so busy and so successful that it is not always realised that Great Britain during 1929 continued to maintain its position as the leading country of the world in export of aeronautical material. During that year the value of the British exports amounted to £2,158,667, while that of the United States, which comes second on the list, amounted to £1,840,477. Each country showed a considerable increase on the figures for the year before.

Ground Organisation

The report records that on November 5 there was held in London a conference on the necessity for municipal airports. "It is felt," says the report, "that the conference went far to stimulate interest in the matter under consideration." Perhaps it did.

An outstanding feature of the year was a conference of Empire meteorologists in London in August. An additional auxiliary reporting (meteorological) station was established in March at Horley near the alternative route from Croydon to the Channel via Redhill. The station at North Foreland was closed in December owing to the move of the Post Office wireless station.

The Leader Cable experiments were reported to have reached the stage where circuits could be satisfactorily made round the cable except in bumpy weather. It was, however, decided to postpone the installation of the apparatus at Croydon, partly on account of cost, and partly because an American system of landing in fog showed considerable promise of success.

On the England-India airway it was found that to achieve a higher degree of regularity a certain amount of night flying would be necessary on all stages of the Cairo-Karachi section. Arrangements were put in train for supplying five 5-kw. landing floodlights of the rotating type on trailers to augment the 10-kw. floodlights. These lights would facilitate night landings at all the intermediate aerodromes and landing grounds between Cairo and Karachi, except Lingeh.

During the year a survey party went to Capetown and made arrangements with the Governments of the Union and of Northern and Southern Rhodesia concerning the air route from Cairo to Capetown. The following route was decided upon: Capetown-Victoria West-Kimberley-Germiston-Pietersburg-Bulawayo-Salisbury-Broken Hill-M'Pika (thence to M'Beya in Tanganyika Territory). Many of the aerodromes will be provided by the municipalities, and the rest by the Governments concerned. Emergency landing grounds at intervals were also to be laid out. By flying the section M'Beya-Salisbury (825 miles) in one day it was hoped to reduce the scheduled time for the route from Alexandria to the Cape from nine to eight days. Night flying at both ends of this section would be involved, and the municipality of Salisbury undertook to equip the aerodrome at that town with lights. The Government of Northern Rhodesia likewise promised a route beacon at some point to the north, probably at Banket. Night landing facilities were also to be provided at Germiston and Capetown.

Civil Aviation Consultative Committee

In July the Secretary of State appointed a Civil Aviation Consultative Committee to assist him with regard to the development of commercial flying in the Empire. The Under Secretary of State is the chairman and there are seven members. Three are members of Parliament (from the three parties), and the others represent shipping, railways, flying, and the F.B.I.

Licences and Certificates

During the year there were current 1,063 "A" licences and 207 "B" licences, 33 navigators, 553 ground engineers, and 90 aerodromes. There were 600 certificates of registration for aeroplanes and 757 certificates of airworthiness for aeroplanes, including 344 C. of A. for aircraft known to have been sold abroad. The 90 aerodromes comprised four owned by the Government, five owned by municipalities,

22 privately owned, 5 owned by clubs, and 54 temporary aerodromes.

Accidents

During the year there were 17 major accidents to civil aircraft, 12 of which resulted in deaths. Of these three happened to regular air transport machines, one to an aeroplane plying for hire, five to club machines, four in private flying, two in schools, and two during tests flights made for constructors. About 70 per cent. were judged due to faulty pilotage. Engine failure contributed to two major accidents (one on the Channel route and one on the India route). There were two cases of structural failure in the air, both on test flights. In one of these last cases the pilot escaped by parachute.

Civil Flying in the Empire

The total sum voted by the Empire, including Great Britain, for civil flying in the year 1929-30 amounted to £1,650,447, an increase over the expenditure of the previous year of 31 per cent.

The mileage of regular services in the Empire, including Great Britain, in 1929 was 20,437. This showed an increase over the previous year of 80 per cent. The figure was made up as follows:—

Great Britain	5,305 miles.
Canada	6,484 "
Australia	6,493 "
South Africa	1,440 "
India	715 "

20,437 "

In Australia, the total vote for civil flying in the year 1929 was £250,000. This, however, was exclusive of a special grant of £200,000 from surplus funds to be used as required in organising new routes. The new services opened during the year were Charleville-Brisbane on April 17 by Qantas; Adelaide-Perth on May 29, by West Australian Airways, Ltd. On September 30 there were in Australia 202 registered aircraft, 151 commercial pilots, 246 private pilots, and 196 ground engineers.

In Canada, the total vote for civil flying in 1929-30 was \$3,658,469 (£749,072), and the amount for route development was \$277,800 (£56,926). In addition, the Post Office voted \$400,000 (£81,816) for payments to air mail contractors. The following new air mail services were opened during the year:—Cranberry Portage-Kississing (45 miles) by Western Canada Airways, Ltd.; Toronto-Buffalo (100 miles) by Canadian Flying Services; Montreal-Detroit (550 miles) by Canadian Airways, Ltd.; Fort McMurray-Aklavik and Hershel Island (1,300 miles) on November 26 by Rutledge Air Service; Montreal-Quebec-Moneton-St. John's (530 miles) on December 9 by Canadian Airways, Ltd.; Oskelaneo-Chibougama (130 miles) on December 20 by Compagnie Aérienne Franco-Canadienne. In addition, many miscellaneous services were in operation. By the end of the year there were 23 clubs in receipt of Government assistance.

In India, the Karachi-Delhi service of 715 miles was opened in December by the Government with machines hired from Imperial Airways. The civil aviation vote in the Budget estimates was £178,050, and the vote for the Karachi-Delhi service was £26,250.

In South Africa, the service Capetown-Port Elizabeth, with two extensions to Durban and Johannesburg, was opened on August 26 by Union Airways, Ltd., who received a Government subsidy of £8,000 per annum. Imperial Airways (South Africa), Ltd., was formed with headquarters at Pretoria to act as agents for Imperial Airways, Ltd. Four new clubs were founded during the year, making a total of nine. These clubs are still unsubsidised. On September 30 there were in the Union 32 registered aircraft, 28 commercial pilots, 50 private pilots, and 20 ground engineers.

In Kenya, the firm of Wilson Airways, Ltd., was formed at Nairobi, and the Aero Club of East Africa was making progress.

Atlantic Airways, Ltd. made proposals for air services in the West Indies and British Guiana. At the date of compiling this summary of the report, the Air Ministry is still hopeful of arranging to help this project.

CIVIL AVIATION IN TANGANYIKA

THE following report on civil aviation in Tanganyika Territory has been issued by H.M. Eastern African Dependencies' Trade and Information Office. Up to the end of 1928 there were only two aerodromes in the Territory, at Tabora and Mwanza. During 1929 ten more landing grounds were prepared, and of those seven have now

been licensed as civil aerodromes, at which landing fees will be charged in accordance with the scale published in the Navigation Directions, 1929 (No. 1). There are now landing grounds at Dar-es-Salaam, Dodoma, Tabora, Mwanza, Kondea Irangi, Moshi, Korogwe, Migoli, Mbeya, Morogoro, Arusha and Sadani, of which the first seven are licensed aero-

dromes for small and medium aircraft. Petrol and oil can be obtained as a rule at these places, except at Sadani and Nigoli.

There is one Government aeroplane, but at present there are no privately-owned machines in the Territory. There are two pilot surveyors, as well as one ground engineer

attached to the Survey Department. A Director of Civil Aviation was appointed in March, 1930. It is expected that five Government aeroplanes will be in operation before the end of the year. It is proposed to establish aerodromes at Kigoma, Same, Buiko and possibly Tanga during the present year.

THOSE METROPOLITAN AERODROMES

THE problem of providing aerodromes *within* London—or any large city—and so avoid the delay entailed in getting to and from the main airport by ordinary transport, has been engaging the attention of the Air Ministry and others for some time past. There are various objections to utilising the parks and similar open spaces for this purpose—and, personally, we are all for retaining their comparative quiet and restful character, however interesting it may be to watch aircraft landing and taking off.

Suggestions have also been made to employ the roofs of railway termini and other large buildings, and here, too, there are various difficulties.

A possible solution—although, perhaps, one which might at first sight appear somewhat fantastic—suggests itself to us when reading recent letters to the Editor of *The Times* from Mr. Alfred C. Bossom. Writing from Carlton Gardens, Mr. Bossom urged:—

(1) that all railways entering London should be electrified at points well outside the boundaries of the capital, thus abolishing from our midst that archaic and air-polluting nuisance, the steam-driven locomotive;

(2) that the open cuts through which the trains now run to their metropolitan termini should be covered over, the buildings erected and streets created on the new sites thus brought into existence;

(3) that these operations were technically feasible, had already been successfully carried out elsewhere (in New York, for instance), could be completed without any disturbance of the present railway service, and were bound, through their manufacture on a vast scale of new property values, to prove financially remunerative; and

(4) that London, thus suddenly endowed with more space,

more elbow-room, more streets and open places, would at last be in a position to grapple with its slum clearance problem.

Now, assuming that Mr. Bossom's scheme is feasible, financially and otherwise, here surely is a possible solution for providing one, if not a series, of central aerodromes in London. Mr. Bossom's estimate of the space that would thereby become available is about 40 miles of open railway cuts within the county of London, which would yield approximately 350 acres of new building areas.

From this acreage, we suggest that here would be the basis for these central aerodromes, by ear-marking the extensive spaces available at various railway termini approaches for one or more medium-sized aerodromes. One could certainly obtain ample length, and we think, in certain instances, width. We have in mind such cases as the Paddington approach and Westbourne Park Goods Sidings, Marylebone, Victoria and even Waterloo.

However, there is the suggestion—develop it or squash it as you may think fit!

The London County Council, on July 15, decided that the General Purposes Committee should consider the advisability of providing garage and other accommodation for aircraft in Central London.

Mr. Reynolds had asked that the Committee should consider the practicability of utilising the Thames, roofs of big buildings, and other buildings in streets where the sky line was sufficiently level, for the construction of super-structure platforms for the taking-off and alighting of aircraft.

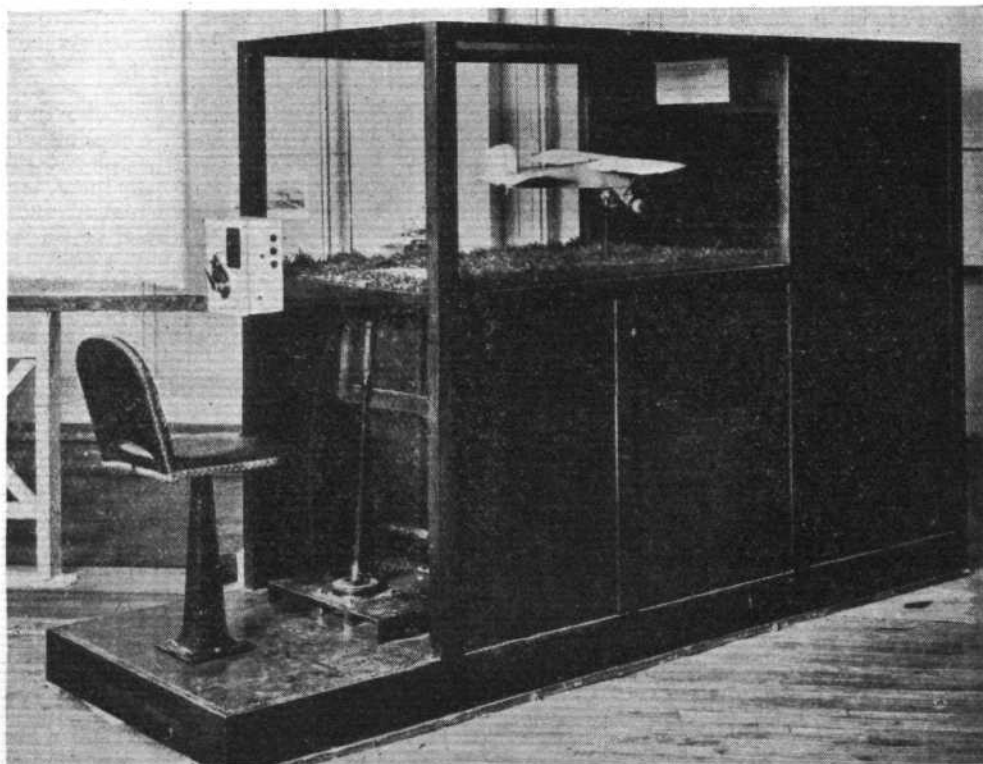
THE CURTISS INSTRUCTION MODEL

Shell-Mex Introduce a Novelty

SHELL-MEX, LTD., have recently secured the European rights for a device of American origin, the Curtiss Instruction Model, which may, in addition to being a very amusing "toy," serve a more serious purpose in giving beginners a very good idea of the manner in which an aeroplane responds to the controls. The Curtiss Instruction Model consists of an electric generator driving a fan, the slipstream from which is deflected by a scoop and directed, *via* a honey-comb arrangement to straighten the air flow, on to a small aeroplane model supported on a vertical spindle carried on a parallel link mechanism. All the controls of the model work as in the full-size machine, and a variable resistance represents the engine throttle lever. The flying controls of the model are joined up to a full-size joy stick and foot bar.

The pupil takes his seat and grasps the controls. With his left hand he opens the "throttle," and when a sufficient airspeed is attained, the model rises from the "ground," and is, except for the absence of sideslip, to all intents and purposes a small flying machine. The model can be made to rise and descend, turn, bank and so forth. A trained

pilot can even, with a little practice, cause it to stall. The behaviour of the model is very realistic, and the apparatus may possibly be of use at schools and clubs for giving prospective pupils a very good idea of how an aircraft is controlled. It can never, of course, take the place of actual flying experience, nor is it claimed to do so, but for *ab initio* training it may have certain advantages.



THE CURTISS INSTRUCTION MODEL: This consists of a model supported in a high-speed airstream, and controlled by full-size joy stick and foot bar.

CORRESPONDENCE

[The Editor does not hold himself responsible for opinions expressed by correspondents. The names and addresses of the writers not necessarily for publication, must in all cases accompany letters intended for insertion in these columns.]

KING'S CUP AIR RACE—BARTON CONTROL

[2320] In your editorial article issue of July 11, you suggest that there was confusion at the Manchester Air Port during the King's Cup Air Race. May I deny this entirely and state that the organisation was in every way quite equal to its task.

Our lists show that every machine was officially started, and only two left a few moments late, in both cases the fault was due entirely to the pilots or to engines, and the organisation or starters were in no way to blame. At one time we had fifty-one aircraft on the aerodrome, but arrangements ran perfectly and we have received several letters from pilots, none of which suggested there had been any confusion.

Two men were sent to each aircraft as it landed and taxied it to the petrol dumps, one official to each machine then took the pilot and passenger and showed him the lavatories and refreshment tents. The time-keeper at the finishing line made out two cards stating the time of departure for each aircraft, one card was sent to the starter, and the other card to the pilot. Pilots signed that they had received these cards and our lists show that no pilot received his card more than 10 min. after he landed. All machines were taxied to the starting line in plenty of time and it is absurd to suggest that at Manchester anyone could have gone off without being officially started.

I feel that to class Manchester with the state of affairs at Newcastle or Hull is unfair and I trust you will inquire into the matter and clear this point up.

Bowdon, Ches.,

JOHN F. LEEMING,

July 14, 1930.

Royal Aero Club Steward.

SLOW LANDING AIRCRAFT

[2321] We would crave a little space to reply to Mr. Du Cane's letter (2318), in the present issue of FLIGHT.

He states that no manufacturer, with the exception of Mr. Dudley Watt, appears to cater for Harry or Harry's pal. We would beg to contradict this and to state that the "Redwing," a description of which appeared in the same issue of FLIGHT, has been designed almost entirely to comply with Mr. Du Cane's main requirements.

The flight trials have come well up to the expectations of the designers, and the machine is under perfect control at well under 35 m.p.h. The "floating" tendency is absent, and in the words of one of the pilots who have flown it, "You can put the machine down anywhere, and she stops there." The run, take off and climb are particularly good and in a recent test, the take off against a wind of approximately 5 m.p.h. with full load, was under 60 yards.

The other main features which Mr. Du Cane mentions, and which are embodied in this machine, are:—

- (1) Small engine power, i.e., 80 h.p. "Hornet."
- (2) Side by side seating with dual control.

We would also point out that particular attention has been given to the landing gear. The wide track (6 ft. 6 in.) and the double-acting Oleo leg of 7-in. travel, makes the machine practically fool-proof when landing.

We trust that the above will convince Mr. Du Cane that the main requirements which he specifies have been embodied in our Redwing, and that the demands of Harry have not been neglected.

ROBINSON AIRCRAFT CO., LTD.,

Wallington, Surrey.
July 3, 1930.

J. W. ANDERSON.

MODELS

THE MODEL AIRCRAFT CLUB. (T.M.A.C.)

THERE will be a Display of Model Flying at Wimbledon Common (near the Windmill) on August 2, at 3.30 p.m.

A Special Competition will be held for Junior Members under 16 years of age. Prizes will be given for the best flights; any type of model may be entered.

Through the kindness of Mr. Percival Marshall, the T.M.A.C. will be able to have a stand at the Model Engineers' Exhibition in September.

If possible, we want to have a better exhibit of members' work than last year. It is hoped that this early announce-

"PUSS-MOTH" IN THE CHANNEL

[2322] The statement in your issue of the 27th ult. *re* the above has just been brought to my notice. As passenger in the machine at the time of the accident, I hope you will allow me to point out the inaccuracy of some of the remarks in that statement.

Flying at a reasonable height, we had twice circled the trawler—which eventually picked us up—in a left-hand direction, and having obtained the information we required were about to take up our course. The pilot endeavoured to put the machine on a straight course in the normal manner. The machine, however, failed to respond to the controls, and the left wing refused to rise, when, without any warning, continuing in a left-hand turn, it dived into the sea.

As to whether there was a breakage in one of the controls, or whether the elevator came into contact with some flying object—a large hole straight through the right-hand elevator was noticed after the accident—it is impossible to say.

I feel, however, that in fairness to the pilot of the machine, the true facts should be made public, and I trust to your good offices in the matter.—Yours faithfully,

Paris, July 2, 1930

O. J. PHILIPSON

P.S.—I have communicated with the mechanic, who also was in the machine at the time of the accident, and he endorses the views expressed in this letter.

[It is, we think, quite possible that a gull might have flown into the machine and jammed the controls. Collisions between birds and aeroplanes in flight frequently result in a kind of "pulverising" of the former—the victim spreading itself over projections and into crevices at the point of impact.—Ed.]

THE DAILY PRESS AND ACCIDENTS.

[2323] In the past few months there have been one or two accidents to privately-owned aircraft, which some people would place under the heading of "mysterious."

If the daily Press does not describe an accident as "mysterious," which is unfortunate for aviation, they say, point blank, that the machine "broke up in the air," which is even more unfortunate, since experience shows that the modern proven light aircraft does *not* break up in the air. Such statements are at least unfair to our excellent manufacturers, some of whose names are almost household words.

From the point of view of one who has been piloting aircraft since 1912, and who, particularly in his early days, had first-hand knowledge of more accidents than he cares to remember, there are, today, only three items which do give rise to some inquietude. These are: engine failure, collision, and fouling of controls. (The results of bad weather are felt in every form of transport.)

Engine failure is becoming so uncommon that, when it does happen, the modern pilot is unprepared; collision is happily infrequent, but with the increasing numbers of aircraft, it behoves pilots to extend greater diligence in this respect. Fouling of controls unfortunately can seldom be proved as the resulting crash is nearly always fatal.

Now all these forms of accident are dependent on the human element, and the simplest to avoid is the last.

It would be as well if those who fly, either as pilot or passenger, would *carefully* stow away the oddments, or make fast the belt or harness that they sometimes disdain to use.

London, W.1.
July, 1930.

G. F. PRETYMAN,
Wing-Commander.

ment will make that possible.—A. E. JONES, Hon. Secretary
48, Narcissus Road, West Hampstead, N.W. 6.

American Wakefield Challengers

FOUR American schoolboys, members of the Model Airplane League of America, arrived in England on July 15. They are taking part in the model aeroplane competition for the trophy presented by Lord Wakefield, which is to be held at Halton Park on Saturday next. On Wednesday morning the boys, who are under the leadership of Mr. M. L. Haas, visited South Kensington, and later the Hawker works at Kingston, and in the evening they were entertained by the Lord Mayor of London at the Mansion House.

AIRISMS FROM THE FOUR WINDS

News of Australian Flyers

AFTER over a week without news of Mr. E. L. Hook and Mr. J. Matthews, who were attempting a flight from England to Australia, and were lost in Burma, a report came from Rangoon on July 13 stating that Mr. Matthews had arrived at Prome (300 miles from Rangoon) in a weak and exhausted condition. A telegram from the Deputy Commissioner of Prome stated: "Mr. Matthews was picked up by villagers in longitude 94.56 latitude 18.47, after walking for seven days down the course of the Buyo stream. Mr. Hook was left behind unable to walk, one day's march away. A search party, and the township officer at Padaung and a sub-assistant surgeon, left Padaung today. The police and villagers are believed to be already searching. It is hoped that Mr. Hook will be brought in alive. The aeroplane crashed east of Tomas, but the precise locality is not yet known."

It appears that they crashed in the jungle about 150 miles from Prome, and both airmen went through terrible sufferings in trying to reach civilisation. Mr. Matthews attempted to carry his companion but found this almost impossible owing to the swampy nature of the ground. After seven days Mr. Hook collapsed, and Mr. Matthews, at the latter's request, proceeded alone. Eventually he met some natives, who took him into Prome. At the time of writing reports state that Mr. Hook has not yet been rescued, although several search parties are at work, but these are meeting with considerable difficulty owing to severe monsoon floods, etc.

"Graf Zeppelin" Visits England Again

During a 48 hours' cruise the German airship *Graf Zeppelin*, after passing the Farøe Islands, paid a flying visit to Scotland and England on July 11. The airship flew down the east coast of Scotland, passing over Aberdeen, Dundee and Edinburgh, then following the north-east coast of England, turned eastwards near Hull and made for Holland, en route for Friedrichshafen. At Aberdeen, the airship was welcomed with blasts from the sirens of a number of German trawlers berthed in the fish market, and at Edinburgh she circled round the Castle.

Fifth International Aeronautical Congress

TWENTY-EIGHT nations will be represented at the fifth International Aeronautical Congress to be held at The Hague from September 1 to 6.

Press Delegation at Cardington

A LARGE party of the delegates to the Imperial Press Conference paid a visit to Cardington on July 10 and inspected the R 100 and R 101 and mooring mast.

New York-Buenos Aires Non-Stop

ON July 15 three American airmen—Enslow, Garrigan and Pied—set out from New York in a monoplane, "K. of Newhaven," on a non-stop flight to Buenos Aires, which they expected to accomplish in 120 hours. Fuel and supplies were to be taken in during flight at various points en route.

Port Natal-Dakar Air Mail

M. JEAN MERMOZ left Port Natal on July 9 for Dakar, with mails, and was forced to alight in the sea owing to oil-pipe troubles, after having completed about two-thirds of the

distance. Being in wireless communication with the s.s. *Phocée*, however, the latter was able to render the necessary assistance.

Air Raid on Milan

DURING the busiest part of the day on July 11 an aeroplane flew low over Milan and dropped anti-Fascist leaflets. These were promptly collected by police and militia, while two fast aeroplanes were sent up in pursuit of the raider, but without success. Later, a machine crashed in the St. Gothard fortified area—a forbidden area—and the pilot, one Bassausi, was injured and taken to hospital. As a quantity of anti-Fascist literature was found on the machine, it was assumed that this was the visitor to Milan!

Italy-Australia Flight

SIG. SAVINO, an Italian pilot, recently left Milan in a "Moth" seaplane for Australia. Petrol trouble forced him down at Fao, Mesopotamia, and on July 12 he crashed at Charbar. The airman and his damaged seaplane were taken on board the mail steamer bound for Karachi, where repairs will be carried out.

German Flying Boat Disaster

A DORNIER WAL flying-boat on the Stettin-Stockholm service was forced down in the sea on July 7, and the auxiliary schooner *Maja* came to the rescue and took the flying-boat in tow, but owing to the high seas the machine capsized. The pilot, one passenger and a mechanic were rescued, but five others were drowned.

West Australian Airways Statistics

Airways Bulletin publishes the following statistics regarding West Australian Airways services up to May 26, 1930:—Passengers carried: (Perth-Derby), 7,311; (Perth-Adelaide), 3,160; taxi and joy-rides, 14,380; machine flights, 10,448; miles flown, 1,517,789; letters carried (Perth-Derby) to March, 1930, 1,728,560; (Perth-Adelaide), 36,638 lb.; freight carried (Perth-Derby), 307,970 lb.; (Perth-Adelaide), 20,720 lb.

R.A.F. Comrades Association

A MEETING was held at Queen's Hotel, Leicester Square, London, on Saturday, July 5, to inaugurate the R.A.F. Comrades Association. Air-Commodore C. R. Samson presided. Lord Trenchard was elected president. The chairman said that 2,000 letters had been received from past members of the flying services welcoming the formation of the Association. The annual subscription would be 5s., and the Association would be recognised by the Air Ministry. THE PLANESMAN was adopted as the official organ of the Association.

Mr. Stephan Recovering

HIS many friends in this country and abroad will be glad to learn that Mr. B. Stephan, Director of the Fokker firm in Holland, is now well on the way to recovery from his recent severe illness. "Step," as his friends affectionately nickname him, has successfully fought his battle with double pneumonia and pleurisy, and is now convalescing at Bad Ems.

FRENCH PRAISE OF THE "CALCUTTA"

IN the July 3 issue of our excellent French contemporary *Les Ailes*, M. Jacques Mattei pays a warm tribute to the Short "Calcutta" flying-boat, purchased by the French Government some time ago. Under the heading, "Le Client est Roi," the French writer states that, although he does not wish to resume the discussion on the respective qualities of English and French seaplanes, it is an undeniable fact that after some months' experience of the "Calcutta," French seaplane pilots have not left off clamouring for more machines of similar type, and he proceeds to examine the reasons for this.

M. Mattei asks the question whether French constructors are incapable of doing as well, and answers the question himself by a no. But he thinks that the purchase of the Calcutta will act as a stimulus to French constructors, and will give them valuable information. In examining the reasons for the preference shown by French seaplane pilots for the British machine, M. Mattei arrives at the conclusion that these may be summarised as follows:—Use of a metal hull. Great seaworthiness of the British type of hull. The

lateral disposition of the engines, which gives better manoeuvrability on the water. The carefully studied comfort, and perhaps most of all the irreproachable quality of the English materials, and the finish of every detail. In fairness to French constructors, M. Mattei points out that the cost of the "Calcutta" is about three times as high as that of a comparable French machine.

The writer further goes on to state that French seaplane pilots have been stepmotherly treated because the French have not the "sea sense." Paris is on the Seine, and so orders have been placed for machines that did well enough on sheltered waters. But the English, with their better appreciation of the sea, produced seaworthy flying-boats that can operate on and from the open sea.

That this French expression of praise is not an isolated one is shown by the fact that two more "Calcuttas" are to be built in France by the Breguet firm, under an arrangement with Short Brothers.

These machines will be fitted with Gnome-Rhone "Jupiter" engines.

ROTARY "THUMBS"

Further Details of Dr. Thurston's Invention

PATENT Agents are wary birds. Their experience has taught them the dangers of disclosing too much detail in the early stages of an invention. Consequently, it need cause no surprise that FLIGHT has not been able to obtain from Dr. A. P. Thurston, except by slow stages, the actual details of his latest invention, the rotary "thumb," some sketches of which were published in FLIGHT of June 20, 1930.

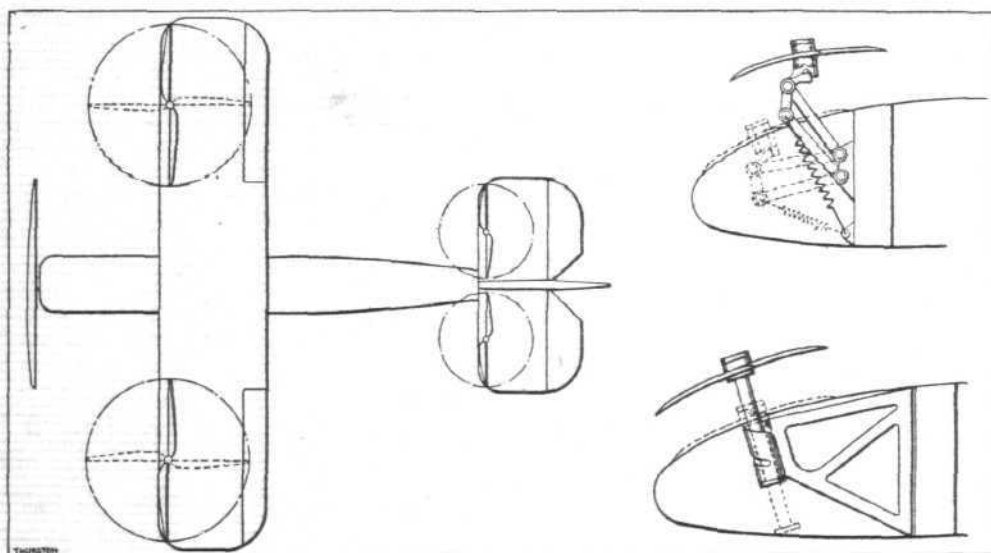
The invention relates to a method of obtaining extra lift by preventing the air from breaking away from the aerofoil at large angles of incidence. The action is, in fact, very similar to that of the Handley Page slot, but Dr. Thurston claims for it that it is more powerful, owing to the fact that the rotary "thumb" is revolving at high speed, whereas the auxiliary aerofoil or "rider plane" in a slot mechanism is stationary.

It would appear that Dr. Thurston's rotary "thumb"

acts in two individual stages: For fairly large angles, the rotary "thumb" rides upward on its spindle, and produces a slot effect, but does not rotate. In the raised but stationary position the "thumb" is in effect a slot. Whether more or less effective than the orthodox type of slot we have no means of knowing. One would suppose it to be less effective, due to the fact that the "rider plane" is of airscrew form.

If the angle of the wing on which the rotary "thumb" is mounted is further increased, until in a normal wing it would be far beyond the stall, the "thumb" begins to rotate, and in so doing, Dr. Thurston claims, it has a very powerful action, and will enable the machine either to fly very slowly at a large angle of incidence, or to "parachute" down along a nearly vertical flight path, still under control and at a low sinking rate.

Dr. Thurston points out that it is possible to have a number of these rotary "thumbs" placed along the leading edge of a wing, and that by varying the angle at which the spindle of each is set to the chord line of the wing, it is possible so to arrange matters that no portion of the wing stalls before any other portion.



THURSTON'S ROTARY "THUMBS": On the left the "Thumbs" are shown in place on wings and tail of a machine, and on the right are two ways of supporting the "thumbs" on the leading edge.

DEATH OF MAJOR H. G. FFISKE

IT is with regret we have to announce the death of Major H. G. ffiske, which occurred suddenly on Thursday evening, July 3, in the Calfont Cottage Hospital following an operation. Major ffiske, who was in his 41st year, was taken ill on Monday. He was worse that night, operated upon early Tuesday, but acute peritonitis caused his collapse on Thursday.

He was the second son of Mr. Henry ffiske of Holm Close, Brundall. Born November 3, 1888. Educated at Eversley School, Southwold, Bury Grammar School and the School of Engineering, Crystal Palace.

He joined the staff of Boulton & Paul, Ltd. 1907, and made a business trip to Argentina, 1913. Up to the outbreak of the war he managed the London Office of the Company in Queen Victoria Street, to



Maj. H. G. ffiske.

which duty he returned in 1918, and continued until the present time.

He joined the Royal Field Artillery, 1st East Anglian Brigade (T.F.), as a 2nd Lieut., March, 1909, received his captaincy, February, 1915, and went out to France with his unit that year. He transferred to the Royal Flying Corps in the field, and saw further service in Mesopotamia and Egypt. He retired with permission to retain his rank of Major.



Busk Aeronautical Studentship

A VACANCY having arisen for the Busk Studentship, the trustees hope to make an appointment shortly. The studentship (established in memory of Mr. Edward T. Busk, who lost his life while flying an experimental aeroplane in 1914), tenable for one year with the possibility of re-appointment for a second, is worth about £150. It is open to British subjects under 25 years of age who are willing to undertake aeronautical research, particularly in such matters as stability problems, the meteorological side of aviation, and the investigation of gusts. Forms of application can be obtained from Prof. B. Melvill Jones, Engineering Laboratory, Cambridge, and must be returned by July 26.

The Puss Moth in Canada

GEOFF O'BRIEN and George Mickleborough recently flew in a Puss Moth from Toronto to Winnipeg, 1,400 miles, in 14½ hours. This is said to be the first recorded flight between the two cities in one day. They left Toronto before sunrise and landed before dusk. The landings en route were Detroit, Chicago, Madison, St. Paul, Fargo, and Grandforks. O'Brien reports that the flight was delightfully pleasant and entirely trouble free, the only incident being a 35 m.p.h. head wind up the Mississippi Valley. Their Gipsy Three engine has now done over 70 hours' hard flying without a falter.

THE ROYAL AIR FORCE

London Gazette, July 8, 1930

General Duties Branch

Capt. H. M. A. Day, A.M., R.M., is granted a permanent commn. as Flight Lt., with effect from June 21, and with seniority of July 1, 1928. The following are granted short service commns. as Pilot Officers on probation with effect from and with seniority of June 27 :—P. S. Ball, J. W. Bateman, R. B. Brown, J. E. F. Chapman, G. J. S. Chatterton, M. V. M. Clube, A. R., Collins, W. R. Farley, E. J. Gracie, G. W. P. Grant, R. G. Harman, I. B. Hills-Spedding, W. E. Hooper, R. L. Hoyle, A. J. McDougall, H. W. Mernagan, J. B. S. Monypenny, D. G. Morris, G. N. Snarey, G. G. Stead, N. C. M. Styche, M. R. D. Trewby, A. E. Upchurch, R. Wardrop.

Pilot Officer on probation T. W. Hodgson is confirmed in rank (June 18). The following Pilot Officers are promoted to rank of Flying Officer (June 15) :—B. T. Shelley, F. C. Sturgiss, E. R. M. Walker, J. R. Scarlett.

The following are promoted with effect from July 9 :—*Flight Lieutenants to be Squadron Leaders*.—S. E. Toomer, D.F.C., V. H. Tait. *Flying Officers to be Flight Lieutenants*.—T. G. Pike, H. W. Pearson-Rogers, D. S. E. Vines, A. H. Willetts, A. H. Montgomery.

The following are placed on half-pay list, Scale A :—Wing Commander A. R. Arnold, D.S.C., D.F.C. (July 6) ; Squadron Leader J. Noakes, A.F.C., M.M. (June 27).

The following Flying Officers are transferred to Reserve, Class A (July 7) :—G. P. Butcher, H. A. S. Byrne, H. V. Crowder, C. A. C. Patton, E. C. L. Richardson, R. C. Whittle. The following are transferred to Reserve, Class C :—Flight-Lt. H. N. Hawker (June 26) ; Flying Officer W. L. Robertson (July 7) ; Flying Officer W. J. M. Spaight (July 9) ; Flying Officer T. B. Fenwick (July 9).

Flight-Lt. R. E. B. Rose relinquishes his short service commn. on completion of service (July 9). Flying Officer J. W. Busted relinquishes his short service commn. on account of ill-health (July 7). The short service commns. of the follg. Pilot Officers on probation are terminated on cessation of duty :—R. D. Cotton (June 27) ; H. G. Burgess (July 9) ; E. S. Ennals (July 9).

Accountant Branch

The follg. Pilot Officers on probation are confirmed in rank and promoted to the rank of Flying Officer (June 3) :—H. D. Nicholson, G. E. Shirley.

RESERVE OF AIR FORCE OFFICERS

General Duties Branch

The follg. are granted commns. in Class AA (ii) as Pilot Officers on probation :—J. K. Lawrence (June 25) ; G. D. M. Blackwood (June 26) ; W. C. Farr (June 26). T. N. C. Burrough is granted a commn. in Special Reserve as Pilot Officer on probation (May 31). Pilot Officer on probation T. Herbert is confirmed in rank (Oct. 11, 1929). Flying Officer J. F. Dewar relinquishes his commn. on completion of service (June 14).

AUXILIARY AIR FORCE

General Duties Branch

No. 601 (COUNTY OF LONDON) (BOMBER) SQUADRON.—Flying Officer W. E. Windham resigns his commn. (July 8).

PRINCESS MARY'S ROYAL AIR FORCE NURSING SERVICE

Sister Miss E. Crozier is placed on retired list at her own request (July 6).

ROYAL AIR FORCE INTELLIGENCE

Appointments—The following appointments in the Royal Air Force are notified :—

General Duties Branch

Group Captain J. B. Bowen, O.B.E., to No. 3 Flying Training Sch., Grant-ham, to command, 8.7.30.

Wing Commander A. R. Arnold, D.S.C., D.F.C., to Half-pay List, 6.7.30. *Squadron Leaders* : W. A. K. Dalzell, to Electrical and Wireless Sch., Cranwell, 30.6.30. A. P. Maurice, D.F.C., to R.A.F. Depot, Uxbridge, 1.7.30. A. Coningham, D.S.O., M.C., D.F.C., A.F.C., to Central Flying Sch., Wittering, 5.7.30. J. Noakes, A.F.C., M.M., to Half-pay List, 27.6.30. T. W. Elsdon, to H.Q., Coastal Area, 11.7.30.

Flight Lieutenants : J. A. T. Ryde, to Experimental Section, Royal Aircraft Estab., S. Farnborough, 2.7.30. H. M. A. Day, A.M., to No. 23 Sqn., Kenley, on appointment to a Permanent Commn., 21.6.30. A. D. Macdonald, M.C., to H.Q., Iraq Command, 3.7.30. H. H. V. Tristram, to R.A.F. Practice Camp, Catfoss, 1.7.30. M. C. Dick, A.F.C., to Armament and Gunnery Sch., Eastchurch, 11.7.30. A. H. H. Macdonald, to No. 1 (Indian Wing) Station, 17.6.30. D. W. Gibbon, to Home Aircraft Depot, Henlow, 16.6.30.

Flying Officers : J. W. Caddy, to Sch. of Tech. Training (Men), Manston, 4.7.30. L. P. Moore, to Sch. of Army Co-operation, Old Sarum, 30.6.30. K. C. T. Marshall, to R.A.F. Training Base, Leuchars, 2.7.30. M. J. Du Gray, to No. 84 Sqn., Iraq, 17.6.30. H. J. Walker, to Home Aircraft

Depot, Henlow, 9.5.30. P. J. H. Halahan, to No. 14 Sqn., Palestine, 4.7.30. G. S. King, to No. 45 Sqn., Middle East, 4.7.30. J. G. Parkin, to R.A.F. Depot, Uxbridge, 16.6.30. R. J. Stone, to R.A.F. Depot, Uxbridge, 13.6.30. R. C. Edwards, to Home Aircraft Depot, Henlow, 16.6.30.

Pilot Officers : A. T. Wilson, to R.A.F. Depot, Uxbridge, 1.7.30. L. E. Jarman, to No. 14 Sqn., Palestine, 4.7.30. P. S. Ball, J. W. Bateman, R. B. Brown, J. E. F. Chapman, G. J. S. Chatterton, M. V. M. Clube, A. R. Collins, W. R. Farley, E. J. Gracie, G. W. P. Grant, R. G. Harman, I. B. Hills-Spedding, W. E. Hooper, R. L. Hoyle, A. J. McDougall, H. W. Mernagan, J. B. S. Monypenny, D. G. Morris, G. N. Snarey, G. G. Stead, N. C. M. Styche, M. R. D. Trewby, A. E. Upchurch, and R. Wardrop, to R.A.F. Depot, Uxbridge, on appointment to Short Service Commns., 27.6.30. T. E. Whitome, to R.A.F. Depot, Uxbridge, 1.7.30. T. W. Hodgson, to No. 26 Sqn., Catter-ick, 1.7.30.

Stores Branch

Flying Officers : H. A. Wrigley, to No. 1 Flying Training Sch., Netheravon, instead of to School of Balloon Training, Rolleston Camp, as previously notified, 23.6.30. J. S. French, to School of Balloon Training, Rolleston Camp, instead of to No. 1 Flying Training School, Netheravon, as previously notified, 23.6.30.

Medical Branch

Flight Lieutenant J. Parry-Evans, to Central Medical Estab., 4.8.30.

R.A.F. SPORT

Cricket.

R.A.F. v. ARMY.

The match between the Army and the R.A.F. was played at the Oval on July 5, 7, 8. The Army won by 6 wickets. Scores :—

ROYAL AIR FORCE.

F.O. E. C. Huddleston, c. Milbank, b. Burrows ..	1	c. Burrows, b. Walford ..	0
Sqdn.-Ldr. R. S. Sugden, c. Dynes, b. Walford ..	0	lbw., b. Walford ..	5
Wing-Comdr. C. H. B. Blount, c. Wilkinson, b. Walford ..	4	b. Dynes ..	110
Flight-Lieut. A. J. Holmes, c. Burrows, b. Dynes ..	30	c. E. S. B. Williams, b. Burrows ..	21
Sqdn.-Ldr. R. E. G. Fulljames, c. Walford, b. Milbank ..	17	b. Dynes ..	1
Flight-Lieut. V. Croome, c. Wilkinson, b. Walford ..	0	b. Arnold ..	20
Flight-Lieut. C. D. Adams, c. Leggatt, b. Walford ..	11	not out ..	46
Sqdn.-Ldr. C. B. Cooke, b. Walford ..	10	run out ..	20
B. ..	1	B 14, 1-b 10, w 2 ..	26
Total ..	118	Total ..	336

THE ARMY.

Capt. A. C. Wilkinson, b. Fulljames ..	35	not out ..	36
Lieut. E. D. Dynes, c. Jerram, b. Fulljames ..	10	c. Croome, b. Cooke ..	4
Capt. E. S. B. Williams, c. Blount, b. Fulljames ..	20	b. Adams ..	15
Lieut. C. C. Garthwaite, lbw., b. Fulljames ..	0	b. Fulljames ..	7
Lieut. W. M. Leggatt, b. Fulljames ..	46	b. Blount ..	76
Lieut. L. Williams, b. Cooke ..	107	not out ..	10
Capt. J. E. S. Walford, b. Fulljames ..	15		
Capt. M. B. Burrows, b. Cooke ..	32		
Lieut. M. V. Milbank, c. Adams ..	1		
Capt. F. G. Arnold, c. Croome, b. Blount ..	15		
Capt. F. E. Hugonin, not out ..	3		
B 12, 1-b 5, w 1 ..	18		
Total ..	302	Total (4 wks.) ..	156

Athletics—R.A.F. Championships

The concluding portion of the Royal Air Force championships at Uxbridge provided a surprise in the defeat of S. Ferris by G. H. Lang in the three miles race.

THREE MILES.—A/c. G. H. Lang (Upavon), 1 ; Cpl. S. Ferris (holder) (Uxbridge), 2 ; A/c. Moore (Hendon), 3. Won by 10 yards. Time, 15 min. 14.3-5 sec.

HALF MILE.—A/c. Brown (Martlesham Heath), 1 ; L.A.C. Bassett (Old Sarum), 2 ; L.A.C. Green (Old Sarum), 3. Easily ; 2 yards. 2 min. 2.2-5 sec. **100 YARDS**.—L.A.C. T. W. Elliott (holder) (Catterick), 1 ; Sergt. Coote (Upavon), 2 ; Cpl. G. Moffat (Halton), 3. Foot ; inches. 10.1-5 sec.

ONE MILE (JUNIOR) TEAM.—L.A.C. Allen (Sealand), 1 ; A/c. Lang (Upavon), 2 ; A/c. Swift (Sealand), 3. 4 min. 39 sec. Team result : Sealand, 1 ; Shrewsbury, 2 ; Felixstowe, 3.

PUTTING THE SHOT.—F/O. Knox (Eastchurch), 38 ft. 3½ in. 1 ; F/O. Hope (Tangmere), 2 ; Cpl. Eyles (Hendon), 3. Senior Team : Henlow, 102 ft. 1 in. ; Halton, 98 ft. 4 in. 2 ; Uxbridge, 96 ft. 9½ in. 3. Junior Team : Tangmere, 71 ft. 0½ in. 1 ; Sealand, 67 ft. 3 in. 2 ; Gosport, 65 ft. 3½ in. 3.

ONE MILE (SENIOR) TEAM.—L.A.C. R. H. Thomas (Henlow), 1 ; L.A.C. Hester (Uxbridge), 2 ; A/A. Langley (Halton), 3. 3 min. 38.3-5 sec. Team : Uxbridge, 1 ; Henlow, 2 ; Halton, 3.

TWO MILES RELAY (JUNIOR).—Old Sarum, 1 ; Sealand, 2 ; Andover, 3. 8 min. 42.1-5 sec.

TWO MILES RELAY (OPEN).—Halton, 1 ; Henlow, 2 ; Cranwell, 3. 8 min. 40.9-10 sec.

TUG-OF-WAR (OPEN).—Cranwell bt. Uxbridge by 2 pulls to 0. Junior.—Felixstowe bt. Andover by 2 pulls to 0.

HIGH JUMP.—P/O. H. Simmons (Sealand), 6 ft. 1 in., 1 ; Flight-Lieut. F. E. Nuttall (holder) (Digby), 5 ft. 9 in., 2 ; L.A.C. Finlay (Tangmere), 5 ft. 5½ in., 3. Open team.—Halton (holders), 15 ft. 7½ in., 1 ; Uxbridge, 15 ft. 4½ in., 2 ; Henlow, 15 ft. 4 in., 3. Junior team.—Digby, 11 ft. 3½ in., 1 ; Sealand, 11 ft. 1½ in., 2 ; Tangmere, 10 ft. 7½ in., 3.

QUARTER MILE RELAY (JUNIOR).—Gosport, 1 ; Netheravon, 2 ; Digby, 3. 46.9-10 sec.

QUARTER MILE RELAY (OPEN).—Halton, 1 ; Henlow (holders), 2 ; Cranwell, 3. 46.3-10 sec.

360 YARDS HURDLES RELAY (JUNIOR).—Tangmere (holders), 1 ; Sealand, 2 ; Upavon, 3. 51.1-5 sec.

360 YARDS HURDLES (OPEN).—Halton (holders), 1 ; Uxbridge, 2 ; Henlow, 3. 52.5-10 sec.

ONE MILE RELAY (JUNIOR).—Sealand (holders), 1 ; Netheravon, 2 ; Digby, 3. 3 min. 37.1-10 sec.

ONE MILE RELAY (OPEN).—Cranwell, 1 ; Henlow (holders), 2 ; Halton, 3. 3 min. 34.9-10 sec.

KING'S CUP (SENIOR OR OPEN TEAMS).—Halton, 47 pts., 1 ; Uxbridge, 45 pts., 2 ; Henlow (holders), 44 pts., 3 ; Cranwell, 34 pts., 4 ; Manston, 22 pts., 5.

AIR COUNCIL CUP (JUNIOR TEAMS).—Sealand, 36 pts., 1 ; Digby, 34 pts., 2 ; Upavon, 22 pts., 3 ; Tangmere, 19 pts., 4 ; Gosport (holders), 18 pts., 5 ; Andover, 15 pts., 6.

AIR MINISTRY NOTICES

AIR MINISTRY NOTICE TO AIRMEN

Night Flying without Navigation Lights

ROYAL AIR FORCE aircraft will be flying nightly over the areas described below, between the times and during the periods mentioned. Above the altitudes quoted the aircraft will not exhibit navigation lights, unless other aircraft are observed in their vicinity.

1. Area.—Within the area bounded by straight lines joining Newbury—Swindon—Warminster—Winchester—Newbury.

Time and Period.—Between 19.00 and 01.00 hrs., from June 30, 1930 to August 31, 1930, inclusive.

Altitude.—3,000 ft.

2. Area.—Eastward of straight lines joining Aldeburgh—Cambridge—Dartford—Beachy Head.

Time and Period.—Between 19.00 and 24.00 hrs., from July 15 to 17, 1930, inclusive.

Altitude.—5,000 ft.

3. Area.—Southward of straight lines joining Beachy Head—Sevenoaks—Farnborough—Netheravon—Bournemouth.

Time and Period.—Between 19.00 and 24.00 hrs., from July 22 to 24, 1930, inclusive.

Altitude.—5,000 ft.

Navigational Warning (No. 13 of 1930).

AIR MINISTRY NOTICES TO AIRCRAFT OWNERS AND GROUND ENGINEERS

Certification in Log Books

1. NOTICE to Aircraft Owners and Ground Engineers No. 4 of 1930 stipulates that the certification in log books of overhauls, repairs, replacements, etc. must be done in accordance with the requirements of A.N.D. 7, para. 57. A revised aeroplane log book, in which the actual work of certification will be rendered easier by the printing in each page of the wording of the certificate, will be available in the near future.

2. Where it is desired to use the existing type of log book the certification may be facilitated by having the formal wording of the required certificate written or stamped at the bottom of each page. It will then only be necessary when signing for work requiring certification to make reference to the certificate at the bottom of the page.

3. Whichever method is adopted the certification should be such that it clearly meets all the requirements stated in the Notice mentioned above. (No. 20 of 1930.)

D.H. 60 X. & G. Wooden Fuselage "Moth" Aircraft with Gipsy, Cirrus III or Hermes Engine: Modification of Front Engine Brackets

1. CASES of fracture of the front engine bracket have occurred on aircraft of the above types. All such aircraft are, therefore, to be examined immediately for the presence of cracks in the furrow in the side of the bracket. If any cracks exist, the aircraft is not to be flown until the modification described herein is incorporated. In any case, the modification described herein is to be incorporated within two months of the date of this notice, and the brackets should be frequently examined during that period.

2. The modification consists of removing the front engine brackets, parts No. H. 22494, and substituting the new brackets, parts No. H. 31682.

3. No Certificate of Airworthiness will be renewed until this modification has been satisfactorily incorporated.

4. This Notice does not apply to aircraft of the above types with Cirrus III or Hermes engines which may be found to be fitted with front engine brackets, parts No. H. 17075.

5. Cancellation.—Notice to Aircraft Owners and Ground Engineers No. 12 of 1930 is hereby cancelled. (No. 21 of 1930.)

Index: 1920-1929

Note.—In order to draw the special attention of aircraft owners to the information contained in these Notices, all Notices as from No. 26 of 1929 have been issued under the revised title of "Notices to Aircraft Owners and Ground Engineers." As a matter of convenience, the Notices issued prior to No. 26 of 1929 under the original title of "Notices to Ground Engineers" will also, in future, be referred to under the revised title.

A new index has now been issued and should be substituted for that published as Notice to Ground Engineers No. 5 of 1929.

This gives details of (1) Cancelled Notices; (2) Operative Notices; and (3) Amendments.

This index is now procurable from the Air Ministry. (No. 22 of 1930.)

Aircraft Fitted with Cirrus Engines: Removal of Air Strangling Device

1. CASES have recently been noted where aircraft with Cirrus engines installed have an air strangling device, to facilitate starting, fitted to the carburettor air intake.

This device consists of an air supply tube fitted into the pressure balance orifice in the carburettor diffuser jet boss, and a hand-operated sliding brass shutter working between the carburettor and air intake flanges.

2. Aircraft owners and ground engineers are hereby informed that the design of this device is not approved as complying with the safety requirements of civil aircraft, and, in consequence, the device is to be removed forthwith from all aircraft concerned and the standard air intake fitted.

3. The necessary alterations are:—

Remove.—(a) Air supply tube with its securing fittings. (b) Brass shutter. (c) Air intake with its special flange.

Fit.—(a) Stud to carburettor air intake flange in hole provided. (b) Standard air intake and flange.

(No. 23 of 1930)

The Royal Air Force Memorial Fund

THE Executive Committee held their meeting at Iddesleigh House, on July 2. Sir Charles McLeod, Bart., chairman, presided and Dame Helen Gwynne-Vaughan, G.B.E., was also present at the meeting as deputy chairman. The resignation from membership of the Committee by Air Vice-Marshal Sir Philip Game, C.B.E., was notified to the Committee, he having proceeded to New South Wales to assume the post of Governor. The Vanbrugh Castle School reopened for the summer term on April 28, 1930, with a full complement of 40 boys. The Secretary informed the Committee that between March 18 and 21, 1,500 copies of the annual report and audited accounts were issued to all concerned.

The usual meetings of the Grants Sub-Committee have been held as follows: May 15, when the committee considered 13 cases, and made grants to the amount of £184 2s. May 29, when 11 cases were considered and grants made to £229 6s. 6d. June 19, when 17 cases were considered and grants made to £209 13s. 4d. July 10, when 19 cases were considered and grants made to £441 7s.

IMPORTS AND EXPORTS

AEROPLANES, airships, balloons and parts thereof (not shown separately before 1910).

For 1910 and 1911 figures see FLIGHT for January 25, 1912. For 1912 and 1913, see FLIGHT for January 17, 1914.

For 1914, see FLIGHT for January 15, 1915, and so on yearly, the figures for 1927 being given in FLIGHT, January 17, 1930.

	Imports.		Exports.		Re-exports.	
	1929.	1930.	1929.	1930.	1929.	1930.
Jan.	£ —	£ 2	74,307	147,935	100	—
Feb.	6,532	2,460	195,369	226,049	2	1,000
Mar.	1,210	744	204,664	156,098	90	802
April	5,816	2,959	186,477	213,390	115	79
May	4,706	11,706	243,549	158,460	1,245	2,550
June	9,304	15,029	144,817	252,443	750	1,060
	30,420	35,885	1,049,183	1,154,375	2,302	5,491

£ £ £ £

PUBLICATIONS RECEIVED

Aviation from the Ground Up. By Lieut. G. B. Manly, U.S. Army Air Services, Res. Chicago: Frederick J. Drake and Co. London: Sir Isaac Pitman and Sons, Ltd. Price 15s. net.

Al-Dur-Bra (An Aluminium Brass). Charles Clifford and Son, Ltd., Fazeley Street Mills, Birmingham.

U.S. Department of Commerce: Bureau of Standards *Research Papers: No. 153.*—Design of a Portable Temperature-Controlled Piezo Oscillator. By V. E. Heaton and W. H. Brattain. Price 5 cents. *No. 154.*—A 12-Course Radio Range for Guiding Aircraft with Tuned Reed Visual Indication. By H. Diamond and F. G. Kear. Price 10 cents. *No. 156.*—New Piezo Oscillations with Quartz Cylinders Cut Along the Optical Axis. By A. Hind and R. B. Wright. Price 20 cents. *No. 158.*—Engine-Ignition Shielding for Radio Reception in Aircraft. By H. Diamond and F. G. Gardner. Price 15 cents. Superintendent of Documents, Washington, D.C., U.S.A.

£ £ £ £

NEW COMPANY REGISTERED

AEROTO, LTD., Astor House, Aldwych, W.C.2.—Capital £275,000 in £1 shares. Acquiring the business of manufacturers of and dealers in "Aeroto" screw fans now carried on by the British Aerotechnical Co., Ltd. at Astor House, Aldwych, W.C., and at Slough, Bucks, ventilating, aero-technical and aeronautical engineers, manufacturers of and dealers in machines or apparatus designed for aerial transit, &c. Directors:—G. Massera, 29, Ramillies Road, Bedford Park, W.4. M. Adamchik, 12, Upton Park, Slough. J. C. Akester, 29, Ramillies Road, Bedford Park, W.4. (All directors of British Aerotechnical Co., Ltd.)

£ £ £ £

AERONAUTICAL PATENT SPECIFICATIONS

(Abbreviations: Cyl. = cylinder; i.c. = internal combustion; m. = motors. The numbers in brackets are those under which the Specification will be printed and abridged, etc.)

APPLIED FOR IN 1929

Published July 17, 1930

8,660.	A. G. FOULDS.	Pressure-indicators for tyres. (330,898.)
9,425.	M. O. DARBY and A. A. SIDNEY.	Compression ignition engines. (330,990.)
9,472.	H. E. S. HOLT.	Apparatus for lowering mail bags from aircraft. (330,993.)
20,117.	L. H. JACKSON.	Radiator shutters. (331,103.)
35,733.	MESSTER-OPTIKON Ges.	Lens shutters for photographing landscapes in series from aircraft. (331,174.)
36,065.	H. JUNKERS.	Apparatus for upsetting sheet metal. (331,175.)

FLIGHT, The Aircraft Engineer and Airships

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